```
Title:
Perfect so
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                   Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run
                                               Result
                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                   Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                          Searched
                                                                                                                                                                                                                                                                                                                                                                                                          Total
                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic
    0000
                                        No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :
:
    よるるよ
                                                                                                                                                                                                                                                                                                                                                                                                          number
                                                                                            Pred.
                                                                                                                                                                                                                                                                                                                                                                                   DB
BC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       score
                                         Ś
                                                                             დ
ლ
    17.8
17.4
17.2
17.2
                                        core
                                                                                                                                                                                                                                                                                                                                                                                  seq
seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
                                                                             No. is the greater than derived by
                                                                                                                                                                                                                                                                                                                                                                                                          of,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic
                                                                                                                                                                                                                                                                                                                                                                                  length:
                                                                                                                                                                                                                                                                                                                                                                                                         hits satisfying chosen
                                                                                                            Gapop
                                       Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ԾՏ−
39
                                                                                                                                                                                                                                                                                                                                                  Minimum Match
Maximum Match
Listing first
                                                                                                                                                                                                                                                                                                                                                                                                                       27513289 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            March 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY
    445
444
344.
                                                                                                                                                                                                                                                                                                                                     EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                             taactctgaatttttaaaacccgaagtcaagagctagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Copyright
                                                                                                        em_estov: *
em_estov: *
em_estro: *
em_estro: *
em_htc: *
em_htc: *
em_est1: *
gb_est1: *
gb_est3: *
gb_est4: *
gb_est5: *
em_gss_inv: *
em_gss_inv: *
em_gss_pln: *
em_gss_pln: *
em_gss_phg: *
em_gss_phg: *
gb_gss1: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-435-471B-
                                                                                                                                                                                                                                                                                                                   em_estba:
                                                                           the number of results predicted by chance to have than or equal to the score of the result being by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                       em_em_
    9199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          search,
                                                                                                                                                                                                                                                                                                                                                                                                                                        10.0
                                        Length
                                                                                                                                                                                                                                                                                                       estmu:
                                                                                                                                                                                                                                                                                                                                                                                   0
0
0
                                                                                                                                                                                                                                                                                                                       esthum:
                                                                                                                                                                                                                                                                                                                                                                                                                                               NGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2004,
    GenCore (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          using
                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gapext
    9
28
28
28
                                                                                                                                                                                                                                                                                                                                                    0%
100%
45 sı
                                                                                                                                                                                                                                                                                                                                                                                                                        14931090276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08:42:51; Search time 1988 Seconds (without alignments) 585.827 Million cell upd
   AA875851
CL002662
BZ765559
B02877
                                        ΠD
                                                                                                                                                                                                                                                                                                                                                      summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 version - 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          model
                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                         parameters:
           ωN
                                                                                                                                                                                                                                                                                                                                                                                                                        residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.1.6
Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ltd
                                                                                                                                                                                                                                                                                                                                                                                                         203984
                                                                                                                                                                                                                                                                                                                                                                                                                                                              w
  AA875851 ob34c05.s
CL002662 02S0169.0
BZ765559 SALK 1316
B02877 CSRL-161G3-
                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            updates/sec
                                                                                    printed
                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                              RESULT 1
AA875851/c
LOCUS
DEFINITION
                                                              COMMENT
                                                                                                   REFERENC
                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                       0000000
                                                                                                                                                                                                                                                                                                                                                                                   O
                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                \Omega \Omega \Omega
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ααα
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  വവ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O O
                                                                   JOURNAL
                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                  AA875851
cb34c05.s1 NCI
similar to SW:A
mRNA sequence.
AA875851
AA875851.1 GI:
EST.
Homo sapiens (h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \sigma\sigma\sigma\sigma\sigma\sigma\sigma\sigma
Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausherg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michae Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: M. Bento Soares, Ph.D.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing (Clone distribution: NCI-CGAP clone distribution information found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrat
Mammalia; Eutheria; Primates; Catarrhini; Hominid
1 (bases 1 to 46)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                                                   sapiens (human)
sapiens
                                                                                                                                                                                                                                                  to SW: AIF1 HUMAN
                                                                                                                                                                                                                                                   GI:2985210
                                                                                                                                                                                                                                                  BZ766643
BQ625561
DME545095
CL1002273
BZ665081
BZ665081
BZ6662725
CA334810
AU106257
BQ786274
AAS31325
W38842
BZ764154
BZ764154
BZ764158
BH791558
BH791558
BH791558
BH790227
AV561680
CF330014
BZ812554
BZ290823
BH906653
CB058326
AA170232
BG271166
BG2771507
BG2771507
                                                                                                         Chordata; Craniata; Vertebrata; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                      46 bp mRNA linear EST 25-MAR-1998
Homo sapiens cDNA clone IMAGE:1325576 3'
P55008 ALLOGRAFT INFLAMMATORY FACTOR-1;,
                                                                                                                                                                                                                                               BZ766643 SALK 1376
BQ625561 rd17c06.y
AJ545095 Drosophil
CL002273 02S0105-0
BZ665081 SALK 0262
CA334810 NISC 1t01
AU106257 AU106257
BQ786274 saq65h01.
AA531325 nj51g04.s
W38842 zb28c08.r1
BZ764154 SALK 1240
BZ764155 SALK 1240
BZ764155 SALK 0830
BH791558 SALK 0830
BZ761908 SALK 0830
BZ761908 SALK 0830
BZ761908 SALK 0830
BZ761908 SALK 0915
BZ8537462 AST-2P046
BQ785544 saq79e10.
BX656784 Arabidops
BE896253 601438976
BI865787 ft27e04.x
AL952767 Arabidops
BE896253 601438976
BZ290823 SALK 0915
BZ290823 SALK 
                                                                                   Project (CGAP),
                                                                                                           Euteleostomi;
; Homo.
```

Michael

Ħ

Center

0 •

```
ACCESSION
VERSION
                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CL002662/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                              Contact: Donald R. McCarty
Plant Molecular and Cellular Biology Program
University of Florida
PO 110690 Gainesville, FL 32611-0690, USA
Tel: 352-392-1928 x322
Email: drm@ufl.edu
Sequence flanking probable Mu insertion site in
02S0169-07, Primer set: A
Class: transposon insertion site.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
1 (bases 1 to 56)
Latshaw, S., Tan, B-.C., Settles, A.M. and McCarty, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CL002662
CL002662
02S0169-07A1-G05 UniformMu MuTAIL Library Zea mays genomic 02S0169-07A1-G05, genomic survey sequence.
CL002662
CL002662.1 GI:40219741
                                                                                                                                                                                                                                                                                                                                                                                                          population
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           www-bio.llnl.gov/bbrp/image/image.html
Seq primer: -40m13 fwd. ET from Amersh
High quality sequence stop: 1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45.6%;
Similarity 75.9%;
22; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCGGAATTTTTAAGCCCCAACGGAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTGAATTTTTAAAACCCGAAGTCAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone lib="UniformMu MuTAIL Library"
/note="Vector: TOPO-PCR4; DNA flanking Mu transposon
insertions in Mu inactive lines were extracted from the
UniformMu maize population by the thermo assymmetric
interlaced PCR (TAIL) protocol using primers specific for
the Mu terminal inverted repeat and a set of 16 arbitrary
                                                                                                                                                                                                                                                                                                                                                                                                                                             3., Tan, B-.C., Settles, A.M. and McCarty, D.R. tagged transposon insertions from the UniformMu maize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          constructed by Bento Soares and M.
                                                                                                       /cultivar="UniformMu"
/db_xref="taxon:4577"
/clone="02S0169-07A1~G05"
                                                                                                                                                             /mol_type="genomic DNA"
/strain="W22 (ACR, bz1-m9)"
                                                                                                                                                                                              organism="Zea mays"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       o
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17.8; D
Pred. No. 1.5e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.5e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         명
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fatima Bonaldo.
                                                                                                                                                                                                                                                                                       in UniformMu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Pharmacia) with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSS 19-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ir) primer [5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

RESULT 4 B02877/c

DEFINITION

B02877 CSRL-16

61G3-u

CSRL

flow

sorted 95

d Chromosome

11

linear G 1 specific

GSS 13-JUL-1996 cosmid Homo

0

Locus

B

Š

```
RESULT 3
BZ765559/c
                                Ś
 밁
                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Locus
                                                                 Query Match
Best Local S
Matches 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                              source
 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55 TCCGAATTTCTGAAACCTGATGTAAAG 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 85
Fax: 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BZ765559
SALK_1316
                                                                  25;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: (This is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Salk In
The Sal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R., Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., P. Shinn, P., Zimmerman, J. and Ecker, J.R. A Sequence-Indexed Library of Insertion Mutations in the Arabidopsis Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aurvey
BZ76555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ហ
                                                                                                                                                                                                                                                                                                                                                                                                 Class:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpubla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arabido
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BZ765559.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arabid
                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 77.8
21; Conservative
                                AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA 39
AATTCAGATTGGTTAAAAACTTAAGATAAGAGGAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTGAATTTTTAAAACCCGAAGTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Institute Genomic Analysis Laboratory (SIGnAL)
Balk Institute for Biological Studies
N. Torrey Pines Road, La Jolla, CA 92037, USA
                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          opsis Genome
ished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 bp DNA linear GSS 13-MAR-
31696.45.85.x Arabidopsis thaliana TDNA insertion lines
opsis thaliana genomic clone SALK_131696.45.85.x, genomic
                                                                                                                                                                                                                                                                                                                                                                                                TDNA tagged.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                single pass sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Torrey Pines Road,
453 4100 x1752
558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Joseph R.
                                                                                                                                                 /clone_lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primers. Amplicons were size enriched using Sepharose 400 spin columns and cloned into the TOPO PCR4 vector."
                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                          organism="Arabidopsis thaliana"
|mol_type="genomic DNA"
|strain="Columbia 0"
                                                                                                                                                                                                                                                                       db_xref="taxon:3702"
|clone="SALK_131696.45.85.x"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:28938112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (2001)
                                                                                 44.1%;
65.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44.6%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (thale
                                                                 Score 17.2; DB 28;
Pred. No. 2.6e+04;
D; Mismatches 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 17.4; DB 29
Pred. No. 2.2e+04;
D; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                  recovered from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ω
L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA 92037, USA
                                                                13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29;
   μ
ω
                                                                                                  Length 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                                                                                                                                                                                  left
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56;
                                                                ,;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                    border
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prednis, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-MAR-2003
lines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                    o
Fr
```

genomic

clone

cSRL-161G3,

genomic

survey

sequence

```
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               p
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
BZ766643/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Best I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                        JOURNAL
                                                                                TITLE
                                                                                                                                                                                                                          ORGANISM
                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                                                          survey sequence.
BZ766643
BZ766643.1 GI:2
Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R. Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Shinn, P., Zimmerman, J. and Ecker, J.R.

A Sequence-Indexed Library of Insertion Mutations in the Arabidopsis Genome
Unpublished (2001)
Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGNAL)
                                                                                                                                                                                                                                                                                                                      BZ766643

AS bp DNA Linear GSS SALK 137659.19.20.x Arabidopsis thaliana TDNA insertion Arabidopsis thaliana thaliana genomic clone SALK_137659.19.20.x,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seg primer: T7
Class: cosmid ends
High quality seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Evans, G.A., Burbee, D., Davies, C., Hahner, L., Olive Jones, D., Ward, T., Gillilan, E., Schagemann, J., Pro Harris, J., DeFord, J., McFarland, J., Burzinski, K., Kupfer, K. and Garner, H.R.
Genomic Sequence Sampled Map of Chromosome 11 Unpublished (1996)
                                                                                                                                                                Arabidopsis thaliana
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McDermott Center for Human Growth and Development University of Texas Southwestern Medical Center A: 5323 Harry Hines Blvd, Dallas TX 75235-8591
Tel: 214-648-1600
Fax: 214-648-1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
B02877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: gevans@utsw.swmed.edu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 56)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                       Arabidopsis thaliana (thale cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Evans GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B02877.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTCTGAATTTTTAAAACCCGAAGT 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTTTGTTTTTTAAAACCNGAATT
                                                                                                                                                     (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        derived somatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cosmid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ity sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Vector: sCos-1; Human Chromosome 11 specific
library prepared from flow sorted human Chromosome
derived from Chinese Hampster Ovary (CHO) monochromo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="genomic DN
/db_xref="taxon:9606"
/clone="cSRL-161G3"
                                                                                                                                                   1 to 45)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:1412155
                                                                                                                                                                                                                                                                            GI:28939196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             type="chimeric hamster
=_lib="cSRL flow sorted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from Chinese Hampster Ovary (CHO) monochromosomal cell hybrid, J1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shane Probst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                shane@mcdermott.swmed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 26,
3.2e+04;
6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           somatic cell hybrid
Chromosome 11 speci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , Oliver,T.,
J., Probst,S.
                                                                                                                               Cheuk, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chromosome 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Khan, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dallas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                               genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gilbert, M.,
                                                                                                                                                                                                                                                                                                                                                                 13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                 lines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
```

```
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
BQ625561/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멂
                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44 TGAAAATCATAAACCCAAAGTCAAGATC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: 6
This is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 850
                                                                                                                                       Email: est@watson.wustl.edu
The library was constructed by Claire Murphy and Dr. James McCarter
at Washington University, St. Louis. Meloidogyne incognita eggs
were provided by Andrew Kloek of Divergence Inc., St. Louis, MO.
Putative full length read
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BQ62556
rd17c06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fax:
                                                                                                                                                                                                                                              Contact: McCarter JP
The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, 1
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                    McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T., Dante, M., Marra, M., Hillier, L., Kucaba, T., Theis Bowers, Y., Gibbons, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvili, R., Ronko, I., Kennedy, S., Maguire, L., Beck, Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S., Shin, T., Jackson, Y., Carden McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Meloidogyne incognita (southern root-knot nematode)
Meloidogyne incognita
Eukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 TGAATTTTTAAAACCCGAAGTCAAGAGC 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The Sa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BQ625561
BQ625561.1
                                                                                                                                                                                                                                                                                                                                                                       Iduqau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tylench
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     incognita cDNA 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TONA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
21; Conser
                                                                                                                                                                                                                                                                                                                                                                 Washington Uni-
uhlished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases
                                                                                                                     rector to vector length is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.yl Meloidogyne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           noidea; Heteroderidae; Meloidogyninae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   onservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:3/02"
/clone="SALK_137659.19.20.x"
/clone_lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Institute for Biological Studies
Torrey Pines Road, La Jolla, CA 92037,
453 4100 x1752
558 6379
                                                                                  Location/Qualifiers
/organism="Meloidogyne
/mol_type="mRNA"
/db_xref="taxon:6306"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Arabidopsis thaliana"
mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mol_type="genomic D'strain="Columbia 0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ocat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:21652739
                                                                                                        -40RP from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
45
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43.1%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pass
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16.8; DB 28; Pred. No. 3.8e+04; D; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 bp mRNA linear EST 01-J
incognita egg SL1 TOPO v1 Meloidogyne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recovered from the
                                         incognita"
                                                                                                                                                                                                                                                                                     Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Meloidogyne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               left
                                                                                                                                                                                                                                                                                                                                                                                                                                  Cardenas, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST 01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beck, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Theising, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               border
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   o
,•
```

```
DEFINITION
                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                 feature
                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (17-FEB-2003) Ryder E.J., Department of Genetics,
Submitted (17-FEB-2003) Ryder E.J., Department of Genetics,
University of Cambridge, Downing Street, CB2 3EH, UNITED KINGDOM
The insertion point of the P element is before base 1 of the
The insertion point of the P element insertion line
sequence. Further information about this P element insertion line
sequence found at http://www.flyseq.org.uk and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AJ545095.1
GSS; genome
                                                                                                                                                                                                                                                                                                                                                            Ryder, E.J., Ashburner, M., Bagunya, J., Blows, F., Bucheton, A., Coulson, D., Dickson, B., Drummond, J., Glover, D., Gunton, N., Hafen, E., Hall, S., Heisenberg, M., Lepesant, J.A., Maroy, P., Mechler, B., O'Kane, C., Pflugfelder, G., Rasmuson-Lestander, A. Reuter, G., Roote, J., Szidonya, J., Wang, S., Webster, J. and Russell, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mapping of RS P element insertions in Drosophila melanogaster the DrosDel second generation deficiency kit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSS; genome survey sequence.
Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
  Similarity 71.0
22; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ryder, E.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DME545095

54 bp DNA linear GSS 24-FEB-2003
Drosophila melanogaster flanking sequence of RS P element insertion
P{RS5}5-HA-1284, clone library P{RS5}, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DME545095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AJ545095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGAATTTTTAAAACCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGATTTTTAGACTTTTAAGTCAAGAATTA 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 54)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="egg"
//lab_host="DH108 (Invitrogen)"
//clone_lib="Meloidogyne incognita egg SL1 TOPO v1"
//note="Wector: pCRII-TOPO (Invitrogen); Site_1: EcoRI;
Site_2: EcoRI; The library was constructed by Claire
Murphy and Dr. James McCarter at Washington University,
St. Louis. Oligo(dT)-SL1 PCR based library. cDNA PCR
products of size >400 nucleotides containing SL1 on the 5'
end and oligo(dT) on the 3' end were non-directionally
cloned into pCRII-TOPO(Invitrogen) following the Topo TA
cloning protocol. Meloidogyne incognita eggs were provided
by Andrew Kloek of Divergence Inc., St. Louis, MO."
                                                                                                                                                                   /mol_type="genomic DNA"
/db_xref="taxon:7227"
/chromosome="3L"
/clone="P{RS5}5-HA-1284"
/clone_lib="P{RS5}"
/note="read=5' end"
                                                                                                                      /note="P element insertion
                                                                                                                                                                                                                                                              organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:28552782
                             42.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42.6%;
71.0%;
  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>``</u>
                             Score 16.6;
Pred. No. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16.6;
Pred. No. 4
    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
4.5e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6; DB 13;
4.5e+04;
ches 9;
                                                                                                                         ä.
                                            29;
                                                                                                                         the
                                                                                                                         ហុ
                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                         ď
                                                                                                                        orientation"
  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        o
••
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for
    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ,.
O
```

REFERENCE

AUTHORS

VERSION KEYWORDS

ACCESSION

Locus

DME545095

SOURCE

g

Š

Matches

ORIGIN

REFERENCE AUTHORS TITLE

JOURNAL

JOURNAL

COMMENT

FEATURES

/⁽²⁾

æ

GAATTTTTAAAACCCGAAGTCAAGAGCTAGT 38

Matches

ORIGIN

misc

```
RESULT 9
BZ665081/c
LOCUS
                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
CL002273/c
LOCUS
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
 REFERENCE
                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                             8
                                                                                    SOURCE
                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simila
                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                           51 CCGAA
                                                                                                               BZ66508
BZ66508
       Arabidopsis thaliana
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                               BZ665081 60 bp DNA linear GSS SALK_110684.14.10.x Arabidopsis thaliana TDNA insertion Arabidopsis thaliana genomic clone SALK_110684.14.10.x,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
02S0105-0
Class: tr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PO 110690
Tel: 352-3
                                                                                                   GSS
                                                                            Arabidopsis thaliana (thale
                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zea mays
Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CL0022
028010
                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Donald R. McC
Plant Molecular and Co
University of Florida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     populat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpubl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Latsha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CL0022
                                                                                                                                                                                                                                                                                                                              CTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACTATGAAAACCCTAATTTACGATCTATT 35
(bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ba)
                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53 bp DNA linear GSS 19-5-04Al-A06 UniformMu MuTAIL Library Zea mays genomic 5-04Al-A06, genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                             arity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ses 1 to 53)
w,S., Tan,B-.C., Settles,A.M. and McCarty,D.R.
ce tagged transposon insertions from the UniformMu maize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ished (2003)
                                                                                                                    TTTCTGAAACCTGATGTAAAG 26
                                                                                                                                                   sequence.
                                                                                                                                                                                                                                                                                                                           TTTTTAAAACCCGAAGTCAAG 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  drm@ufl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2-392-1928
                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone lib="UniformMu MuTAIL Library"
/note="Vector: TOPO-PCR4; DNA flanking Mu transposon
insertions in Mu inactive lines were extracted from the
UniformMu maize population by the thermo assymmetric
interlaced PCR (TAIL) protocol using primers specific for
the Mu terminal inverted repeat and a set of 16 arbitrary
primers. Amplicons were size enriched using Sepharose 400
spin columns and cloned into the TOPO PCR4 vector."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        flanking probable Mu insertion site

14, Primer set: A

cansposon insertion site.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Zea mays"
/mol_type="genomic n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cultivar="UniformMu"
db_xref="taxon:4577"
clone="02S0105-04A1-A06"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gainesville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mol_type="genomic
strain="W22 (ACR,
                                                                                                                   GI:28182384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:40219352
                                                                                                                                                                                                                                                                                                                                                                           42.1%;
76.9%;
60)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McCarty
1 Cellular Biology Program
                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 29;
Pred. No. 5.4e+04;
^- Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FL 32611-0690,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bz1-m9)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA"
                                                                               cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                                                                                                                                                                            Length 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UniformMu line:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS 19-DEC-2003
                                                                                                                                                                                                                                                                                                                                                            0
;
                                                                                                                                                                genomic
                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ctone
```

0

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ž
                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BZ662725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
 At1g48430.
Class: TDN
                                                                                    Arabidopsis Genome
Unpublished (2001)
Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGNAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BZ662725 55 bp DNA linear GSS SALK 026216.37.80.x Arabidopsis thaliana TDNA insertion Arabidopsis thaliana genomic clone SALK 026216.37.80.x,
                                                     Email: ecker@salk.edu
This is single pass so
                                                                                                                                                                                                                                                 Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Che Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker Shinn, P., Zimmerman, J. and Ecker, J.R. A Sequence-Indexed Library of Insertion Mutations
                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                            Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          survey sequence.
BZ662725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Salk
                                       TDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10010 N. Torrey Pines Road,
Tel: 858 453 4100 x1752
Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R., Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Prednis, L., Shinn, P., Zimmerman, J. and Ecker, J.R.
A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This is single pass TDNA. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Class:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arabidopsis Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACTATCAGTACTTAAAACCCGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACTCTGAATTTTAAAACCCGAAGT 27
                                                                                                                                                                                                                                                                                                                                (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JDIISHEL 1205.

Lact: Joseph R. Ecker

k Institute Genomic Analysis Laboratory

K Institute for Biological Studies

Salk Institute for Biological Olla, CA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                    This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDNA tagged
TDNA tagged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="SALK 110684.14.10.x"
/clone=lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                               1 to 55)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Arabidopsis thaliana"
|mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'mol_type="genomic D'
'strain="Columbia 0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:28177292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    xref="taxon:3702"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42.18;
                                      sequence
lies with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence recovered from the lies within an annotated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16.4; DB 28; Pred. No. 5.4e+04; D; Mismatches 6;
                                       within
                                                        recovered from
                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 28;
                                       bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CA 92037, USA
                                       O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SIGnAL)
                                                                                                                                                                                                                                                                                         Parker,H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the left
                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        intron of
                                                                                                                                                                                                                                                                                                           Cheuk, R.
                                     left
e 3′ (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60;
                                      end
                                                        border
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         border
                                                                                                                                                                                                                                                                                         Prednis, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   At1g50575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JAN-2003
lines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
CA334810
                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                CDNA Library
DNA Sequencing by: Nation Sequencing Center (NISC)
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequenc
Clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact
Email:
cDNA Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCI-CGA
Nationa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpubl:
                                                                                                                                                                                                                                                                                                                           Plate: LLAM12404 row: K column: 3
Seq primer: M13RP1 reverse primer (ABI).
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 57)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA334810
NISC_lt01f02.yl COGENE 8.5 EPT FIMAGE:5605754 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                  info@image.
Plate: LLAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CA3348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA3348:
                                                                                                                                                                                                                                                                                                                                                                                                      found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Simil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTGTGAACTGATCAAACCTGAAGTTAA 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACTCTGAATTTTTAAAACCCGAAGTCAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Library Arrayed by: The
                                                                                                                                                                                                                                                                                                                                                                           chrough the ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             t: Robert Strausberg,
  cgapbs-r@mail.nih.gov
ibrary Preparation:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10.1 GI:24552908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  onservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   arity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Phttp://www.ncbi.nlm.nih.gov/ncicgap.
       /note="Vector: pAMP1; cDNA primed using oligo-dT primer, directionally cloned into UDG sites of pAMP1. Size selected for insert sizes ranging from 0.2-2.5 kb. Normalized to CotlO. Primary library, non-amplified. Library constructed by M. Lovett. For more information on this library, please contact R. Tidwell (Washington University) or visit the COGENE website at http://hg.wustl.edu/COGENE/."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DN
/strain="Columbia 0"
/db_xref="+>----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:3702"
/db_xref="taxon:3702"
/clone="SAIK_026216.37.80.x"
/clone_lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                            /tissue_type="posterior tongue (pooled)"
/dev_stage="embryo, 8 weeks postconception"
/lab_host="DH108"
                                                                                                                                                                                                                                                     organism="Homo sapiens"
mol_type="mRNA"
db_xref="taxon:9606"
                                                                                                                                                                                                                                     clone="IMAGE:5605754"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Arabidopsis thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41.5%;
                                                                                                                                                                                                                                                                                                                                                                                                     I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ed by: The I.M.A.G.E. Consortium/LLNL National Institutes of Health Intram
                                                                                                                                                                                                                                                                                                                                                                                                                     NCI-CGAP clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16.2; DB 28 Pred. No. 6.5e+04; 0; Mismatches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              æ
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Intramural
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 04-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             o
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
```

```
RESULT 13
BQ786274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                 REFERENCE
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
AU106257
                                                                                                      SOURCE
                                                                                                                    KEYWORDS
                                                                                                                                            ACCESSION
                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Matc
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match
                                                                                                                                                                                                                                                               27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AU106257
AU106257 Sugano F
KAIA5073, mRNA se
AU106257
                                                                                                                                                                                                                                                                                                                 41.0%;
Similarity 79.2%;
19; Conservative
                             rosids; eurosids Glycine.
                                                      Eukaryota; Vir
Spermatophyta;
                                                                                                 BQ786274.1 GI:219947
EST.
Glycine max (soybean)
                                                                                                                                          BQ786274 51 bp mRNA 1 saq65h01.y1 Gm-c1076 Glycine max cDNA clone Gm-c1076-4945 5', mRNA sequence.
BQ786274
  Shoemaker, R.,
                                                                                    Glycine max
                                                                                                                                                                                                                                                                                          ወ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp
Suzuki,Y., Yoshitomo-Nakagawa,K., Maruyama,K., Suyama,A.
Sugano,S. Construction and characterization of a full
length-enriched and a 5'-end-enriched cDNA library. Gene
149-156 (1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 50)
Suzuki,Y., Taira,H., Tsunoda,T., Mizushima-Sugano,J.
Hata,H., Ota,T., Isogai,T., Tanaka,T., Morishita,S.,
Sakaki,Y., Nakamura,Y., Suyama,A. and Sugano,S.
Diverse transcriptional initiation revealed by fine,
mapping of mRNA start sites
EMBO Rep. 2 (5), 388-393 (2001)
21270072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2127007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota;
Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AU106257.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 85.
l8; Conservative
                                                                                                                                                                                                                                                            CTGAACTTTTAAAACTCCCAGACA 50
                                                                                                                                                                                                                                                                                  CTGAATTTTTAAAACCCGAAGTCA 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                               mol_type="mRNA"

'db_xref="taxon:9606"

'clone="KAIA5073"
                 1 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Metazoa; Chordata; Craniata; Vertebrata; I
Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo
                                      Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; yta; Magnoliophyta; eudicotyledons; core eudicots; rosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:13555778
                                                                                                                              GI:21994746
  Keim, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41.5%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   веquence
                                                                                                                                                                                                                                                                                                                                                                                      _lib="Sugano Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                  ,.
                                                                                                                                                                                                                                                                                                               Score 16; DB Pred. No. 7.7e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
Pred.
  Vodkin, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         re 16.2; DB 14; d. No. 6.5e+04; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bp
cDNA
                                                                                                                                                                                                                                                                                                            DB 9;
7.7e+04;
5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mizushima-Sugano,J.,
ca,T., Morishita,S.,
Erpelding, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA linear EST
                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                      cDNA library"
                                                                                                                                                                     linear
e SOYBEAN
                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                            50;
Coryell, V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57;
                                                                                                                                                                     EST 26-JUL-2002
CLONE ID:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Okubo, K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          large-scale
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>`</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sese, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-AUG-2001
                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
```

```
REFERENCE
AUTHORS
                                                                                                                                                                               ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                RESULT 14
AA531325
                                                                                                                                                                                                                                                                                                                                                                                                                                     占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                          FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 17
                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                            nj51g04.
similar
CHAIN 3
NCI-(
                                                                                                                                                      AA53132
EST.
                                                                                                      Homo
                                                                                                                              Homo
    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 52)
NCI-CGAP http://www.ncbi.nlm.n
                                                                                                                                                                                                      AA5313
                                                                                                                                                                                                                                                                                                                                                                                                                                     Φ
                                                                                                                                                                                                                                                                                                         AA531325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact: ccu@resgen.com web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    www.resgen.com
Seq primer: -4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tel:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Shoemaker R/Public Soybean EST Project Public Soybean EST Project Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpubl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 89.
L7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAACI
                                                                                                                                                                                                                                                                                                                                                                                                                                    TAACTCCGTATTTTAAAA 27
                                                                                                      89
                                                                                                                             sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        314 286 1800
314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The library was prepared using the Stratagene pBluescript II SK(+) library construction kit. Complementary DNA was synthesized from mRNA using a primer consisting of a poly(dT) sequence with an XhoI restriction site. EcoRI adaptors were ligated to the blunt-ended cDNA fragments followed by XhoI digestion. The cDNA fragments were directionally cloned into the EcoRI-XhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into E.coli ElectroMax DH10B host cells. Plant material was provided by Michael G. Hahn (Complex Carbohydrate Research Center, University of Georgia) and the library was constructed by Anu Khanna (Lila Vodkin lab, University of Illinois)."
                                                                                                 piens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAATTTTAAAA 19
                                                                                                                                                                                                                  52 bp mRNA linear EST 20-AUG-1997 to SW:NU3M_HUMAN P03897 NADH-UBIQUINONE OXIDOREDUCTASE; mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:3847"
/clone="SOYBEAN CLONE ID: Gm-c1076-4945"
/tissue_type="wounded cotyledons"
/dev_stage="11 day old seedlings"
/lab_host="DH10B"
/clone_lib="Gm-c1076"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="Gm-c1076"
/note="Vector: pBluescript II SK+; Site 1: EcoRI; Site 2:
/note="Vector: pBluescript II SK+; Site 1: EcoRI; Site 2:
XhoI; The cDNA library was constructed from mRNA isolated
from 11 day old seedlings treated with that were treated
from 11 day old seedlings treated with 2 ugs/ml of a crude glucan elicitor preparation
with 2 ugs/ml of a crude glucan elicitor preparation
isolated from the mycelial walls of Phytophthora sojae.
isolated from the mycelial walls of Stratagene pBluescript
isolated from the mycelial using the Stratagene pBluescript
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          r: -40RP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Glycine max"
                                                                                                                                                                            GI:2274031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40.5%;
 /www.ncbi.nlm.nih.gov/ncicgap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15.8; DB 13; Pred. No. 9.2e+04; 0; Mismatches 2;
                                                 Craniata; V
Catarrhini;
                                                    Vertebrata; Buteleostomi;
i; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
뮍
                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W38842/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 23
                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: W. Marston Linehan, M.D., Rodrig
M.D., Michael R. Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: David B. Krizman, Ph.D.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sec
Clone distribution: NCI-CGAP clone distribution inf
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
                     The WashU-Merck EST Project
Unpublished (1995)
Contact: Wilson RK
Washington University School of Medic
4444 Forest Park Parkway, Box 8501, S
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watech
                   Fax: 31 Email:
                                                                                                                                                     1 (bases 1 to 55)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, I
Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Mari
Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F.,
Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P.
                                                                                                                                                                                                                                                                                                                                                   W38842.1
EST.
      This
                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                    W38842
zb28c08.rl Soares parathyroid tumor NbHPA Homo sapiens cDNA IMAGE:304910 5' similar to gb:M90516
GLUCOSAMINE--FRUCTOSE-6-PHOSPHATE AMINOTRANSFERASE (HUMAN);, sequence.
W38842
                                                                                                                                                                                                                                                                           Eukaryota;
Mammalia; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Insert Length: 528 Std Err
Seq primer: -40m13 fwd. ET f
High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  National Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCACTACATTTTGACTACCACAACTCAACGGCTA
                                                                                                                                                                                                                                                                                                              sapiens (human)
sapiens
       clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 considered overall poor quality t Length: 528 Std Error: 0.00 rimer: -40ml3 fwd. ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene Index
  est@watson.wustl.edu
one is available roy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:996054"
/sex="male"
                                                                                                                                                                                                                                    1 to 59)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    priming. Non-qlrectionarry crowns agarose gel, average insert size 600 bp. D. Krizman, NIH."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="normal prostatic epithelial cells"
/lab_host="DH108"
/clone_lib="NCI_CGAP_Pr9"
/clone_lib="NCI_CGAP_Pr9"
/note="Organ: prostate; Vector: pAMP10; mRNA made from normal prostatic epithelial cells, cDNA made by oligo-dT priming. Non-directionally cloned. Size-selected on
                                                                                                                                                                                                                                                                         Eutheria;
                                                                                                                                                                                                                                                                                                                                                                    GI:1320547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Homo sapiens"
                                                                                                                                                                                                                                                                                          Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
ს
ს
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Institute,
                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Eutele
Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.8; DB 9;
Pred. No. 9.2e+04;
D; Mismatches 12;
   royalty-free
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>ب</u>
                                                                     Medicine
501, St. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome
through LLNL
                                                                     Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anatomy Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rodrigo
                                                                       30
                                                                                                                                                                                                                                       Hawkins, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing
                                                                       63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Library made by
                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                                                                      Marra, M.
  contact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 15-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'মা
•
                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chuaqui,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                            clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
•
```

Search completed: M

Job time

1994 sec

Œ

arch 20,

2004,

12:20:59

```
P,
                       Ş
                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                Query Match
Best Local S
Matches 23
  S
S
                                                 23;
                                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer: mop. Never. High quality sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Trace
                                                           Simila
rcrrgrrcrrrahaharcachacrachgagcrgcrh
                       TCTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA 39
                                               40.5%;
larity 65.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Consortium (info@image.llnl.gov) considered overall poor quality
                                                                                                                  /tissue_type="parathyroid tumor"
/dev_stage="adult"
/lab_host="DH10B (ampicillin resistant)"
/clone_lib="Soares_parathyroid_tumor_NbHPA"
/note="Organ: parathyroid_gland; Vector: pT7T3D
(Pharmacia) with a modified polylinker; Site_1:
Site_2: Eco RI; 1st strand cDNA was primed with
                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="GDB:1248320"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                     clone="IMAGE:304910"
                                                                                                                                                                                                                                                                                                                                                                                     organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                        mob.REGA+ET
                                               <u>,</u>
                                                          Score 15.8;
Pred. No. 9
                                                                                                                                                                                                                                                                                                                                                                                                                            stop: 1
                                                                                                                                                                                                                                                                                                                                                                                     sapiens"
                                               Mismatches
                                             9.3e+04;
                                                                         80
18
                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                for further information.
                                                                      Length
                                                 Indels
                                                                      59;
                                             0
                                              Gaps
                                                                                                                                                                                                                                                             Not
                                                                                                                                                                                                                                               ot I;
Not I
                                               .
•
```

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

Run OM nucleic : g nucleic search, March 20, 2004, 11:43:07; Search time 1715 Seconds (without alignments)
985.643 Million cell updates/sec using sw model

Title:
Perfect score:
Sequence: US-09-435-471B-9 39 1 taactctgaatttt

taactctgaatttttaaaacccgaagtcaagagctagta 39

Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0

Searched: 3470272 seqs, 21671516995 residues

Total number of hits satisfying chosen parameters: 1685580

Minimum DB Maximum DB seq length: 0 seq length: 60

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database GenEmbl: * gb ba:
gb htg:
gb on:
gb on:
gb ph:
gb ro:
gb ro:
gb sts:
gb sts:
gb th:
gb non:
gb em_ov: *
em_pat: * em mu: *
em or: *

em_un:*
em_vi:*
em_vi:*
em_htg_hum:*
em_htg_inv:*
em_htg_mus:*
em_htg_pln:*
em_htg_rod:*
em_htg_rod:*
em_htg_vrt:*
em_htg_vrt:*
em_sy:*
em_htgo_hum:*
em_htgo_other:*

em_pl:*
em_ro:*
em_sts:*

Pred. No. ი Ի. the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

H) (-4	4.	4	4,	4	c 39	Ü	37	36	w			ı.	1 C) K	3 &	2 6) N	3 &) N) k	22.22		ı .	0 1 2 2		-	ч	C 14	_	_	_	LJ								· N	Ъ	No.	Result
H	٠, د	. 4	4	4	4	44.	14.8	4.	4.	4.	15	15	i µ.	ı F	ם ני	ט ו	٠, د	טי	υ .	י י	n u	u .	1 0	n U	15.4	۱ <i>ن</i>	ո Մ	ប្រ	្រុ	Ŋ		16.6	σ	17	17	17	17	17	17	17	17	17	17	17.2	18.6	Score	
٥,, ٥) () (י ני ס י ס	7.9	37.9	37.9	37.9	7	.7	7.	.7	.80	æ	œ	α	ο α	2	יי) () (c	۷ .	ο ν	אַ י	۰ د	υ ω Ο . Ο .	•	9.0	.0	0	0	<u>ب</u>	N	\sim	w	Ĺ	Ü	u	'n	w	W	W	w	ω ·	44.1	47.7	Match	D T
4	. H	7 ,) 4 (u)) در ۱ ص) در ۱ و	۰ بر ۱ و	ا (بر) ا (بر)	ω ω	ω ω	ω ω	42	42	42	42	4.2	4 4	. U	4 1	4.4	4 4	٠ (<u>ر</u>	່າພ	յ Մ) K	, H	i tr	44 F	ω O	47	42	47	32	32	20	20	20	20	20	20	20	20	20	20	51	47	Length	
σ	١ ٥	י ת	. עב	. עב	י עכ	י עם	σı ,	S)	თ	თ	σ	σ	σ	σ	ν σ	σ	, α	σ	ο	σ	ισ	٠ ٥	ια	σ	n 01	, σ	ነው	<u>م</u>	σı	σ	0	σ	თ	σ	σ	ወ	ማ	თ	σ	σ	ማ	σ	മ	σ	თ	BIG	
142/	יו היי היי	9 0	X4000000000000000000000000000000000000	15005	10202	R01427	01101	36898	07040	3445	9046	35239	24939	R17928	17550	15418	TH5288	K284723) (T	0 L C C C	1 V 1 C 1 L	ならいしない	58762	70806	AX158820	16499	48462	18413	28858	6321	7829	968	0263	D01729	D01614	602	7441	2632	0080	706	8272	134	7666	650	82	ID	
AR014278 Sequence	teans sequence	orange sequence	BISCR COMMENTS		orentes ecuto	14040	11018 810	שמפשער	70401	34456 Seguenc	0466 A	52390	49391	8	75508	54181		-			eg			,	AX158820 Sequence	~	_	~		Ο,	S	S ·		\sim	<u> </u>	16021 (74418 Seguenc	26320 Sequenc	00802 Sequenc	37069 Sequenc	182722 Sequenc	7134 Sequence	76665 Sequenc	65073 Sequenc	828	escription	

ALIGNMENTS

JOURNAL	AUTHORS	REFERENCE	ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AR288828/c	RESULT 1	
biditeild markers for use in constructing a high density disequilibrium map of the human genome Patent: US 6537751-A 563 25-MAR-2003:	and Blumenfeld, M.	Unclassified. 1 (bases 1 to 47)	Unknown.	Unknown.		AR288828.1 GI:31676112	AR288828		AR288828 47 bp DNA linear PAT 12-JUN-2003			
									-			

```
415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                        DEFINITION ACCESSION
                                                                                                                                                                                                                                                            RESULT 3
AR076665/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
AX165073
                                                                                                 JOURNAL FEATURES
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                 REFERENCE
                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                 Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rocus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
            Query
Best I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                          TITLE
                                                                                                                                                                          ORGANISM
                                                                                                                                    AUTHORS
                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                  variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
            y Match
Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           y Match
Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 268
AX165073
AX165073.1
                                                                                                                                                                                                                      Sequence
AR076665
                                                                           Unctable
1 (bases 1 to 20)
1 (bases 1 to 20)
Bennett, C. Frank. and Dean, N.
Bennett, C. Frank. and Dean, N.
Antisense oligonucleotides against human
Antisense oligonucleotides against human
Patent: US 5959096-A 30 28-SEP-1999;
Patent: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                            25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shimkets, R.A. and Leach, M. Nucleic acids containing single nucle methods of use thereof Patent: WO 0138586-A 268 31-MAY-2001;
                                                                                                                                                                                                                                                                                                                                     Ŋ
                                                                                                                                                            Unclassified.
                                                                                                                                                                        Unknown
                                                                                                                                                                                     Unknown.
                                                                                                                                                                                                             AR076665.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Curagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                 AR076665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX165073
                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
            Similarity
                                                                                                                                                                                                                                                                                                                               AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAACTCTGAATTTTTAAAACCCGAAGTCAAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACTAAAATTTTTTTCACCTKAAGTCATAAGCT 12
                                                                                                                                                                                                                                                                                                              AATTCAGAACTTTTTCACCCCGAACTGGAGAAGGAGCA
                                                                                                                                                                                                                                                                                                                                                      44.1%;
ilarity 65.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47.7%; ilarity 68.6%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Corporation (US)
Location/Qualifiers
                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      268 from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                       /note="single nucleotide polymorphism Accession number cg43999373"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                           /mol_type="unassigned
                                                                        organism="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"

mol_type="unassigned DNA"

db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="unknown"
/mol_type="genomic
                                                                                                                                                                                                                                    from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:14545902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 47
                                                                                                                                                                                                              GI:10003411
           43.6%;
100.0%;
                                                                                                                                                                                                                                    patent
                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 18.6; DB 6;
Pred. No. 4.8e+04;
1; Mismatches 10
            Score :
                                                                                                                                                                                                                                                                                                                                                           Score 17.2; DB 6;
Pred. No. 1.5e+05;
D; Mismatches 13
                                                                                                                                                                                                                                    SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51 bp
WO0138586.
                                                                                                                                                                                                                                    20 bp
5 5959096.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA"
             No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                            DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleotide
            2.2
            3 6; 1
.2e+05
                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                             <u>1</u>3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                       Length 20;
                                                                                                                       protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 47;
                                                                                                                                                                                                                                                                                                                                                                                     Length 51;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polymorphisms
                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                 PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT
                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                          Ω
                                                                                                                                                                                                                                                 30-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JUN-2001
                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                            °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>,</u>
```

```
DEFINITION
ACCESSION
VERSION
LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
AR182722/c
LOCUS
                                                               RESULT 6
AR237069/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
187134/c
                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unknown.
Unknown.
------lassified.
                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unclassified.
1 (bases 1 to 20)
1 (bases 1 to 20)
Bennett, C. Frank. and Dean, N.
Oligonucleotide modulation of protein kinase
Oligonucleotide modulation of DEC-1997;
Patent: US 5703054-A 30 30-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AR182722
Sequence 30 :
AR182722
AR182722.1 (
AR237069
Sequence
AR237069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       I87134
Sequenc
I87134
I87134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    high ch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17;
                                                                                                                                                                                                                                                                                                                                                                                                                                         kinase
Patent:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unclass
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bennet
                                                                                                                                                                                                                                         Simila
17; Co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCG
                                                                                                                                                        ccce
                                                                                                                                                                                                  CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43.6%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                     43.6%;
larity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ses 1 to 20)
t,C.Frank., Dean,N.M., Cook,P.Dan. and Hoke,G.
t,C.Frank., Dean,N.M., Cook,P.Dan. and Hoke,G.
nse oligonucleotides which have phosphorothioate linkages
hiral purity and which modulate .beta.I, .beta.II, .gamma.
hiral purity and which and .eta. isoforms of human protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           onservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                 US 6339066-A 30 15-JAN-2002;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
0
                        30
                                                                                                                                                                                                                                                                                                                                                 /organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:3206852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  from patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:20225929
                      from patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>ა</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 17; DB; Pred. No. 2.2 0; Mismatches
                                                                                                                                                                                                                                        <u>.</u>,
                                                                                                                                                                                                                                                                Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ,.
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SD
                         SD
                                                                                                                                                                                                                                      ore 17; DB 6; Location Control Control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                        20 bp
3 6465439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5703054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6339066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 6; Le
2.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ··
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                   Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT
                                            PAT
                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
;
                                             20-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUN-1998
                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .gamma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                         °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>`</u>
```

```
RESULT 8
AX226320/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
AR300802/c
                                                                                                                                                                                                                                              밁
                                                                                                                                                                  DEFINITION ACCESSION
                                                                                                                                                                                                                                                                 5
                                             FEATURES
                                                                                                   REFERENCE
                                                                                                                                                        VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
                                                                                                                                           KEYWORDS
                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
Matches 1
                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
JOURNAL
                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                 Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                  source
                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                    Bennet, C.F. and Dean, N.
Oligonucleotide modulation of protein
Patent: EP 1126025-A 30 22-AUG-2001;
ISIS PHARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                AX226320
Sequence
AX226320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AR300802
Sequence 30
AR300802
AR300802.1
                                                                                                         synthetic construct
synthetic construct
artificial sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17;
                                                                                                                                                     AX226320.1
                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 20)
Bennett, C.F., Dean, N.M., Holmlund, J.T. and Doligonucleotide inhibition of protein kinase Patent: US 6537973-A 30 25-MAR-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 20)
Nicklin, P.L., Phillips, J.A., Love, W.(
Pharmaceutical compositions
Patent: US 6465439-A 30 15-OCT-2002;
Location/Qualifiers
1. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                 Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AR237069.1
                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                            CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                      43.6%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43.6%; larity 100.0%; Conservative
                                                                                                                                                                            ယ
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .20
/organism="unknown"
/organism="synthetic c
/mol_type="unassigned"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                         /organism="unknown"
/mol_type="genomic")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="genomic DNA"
                                                                                                                                                     GI:15555584
                                                                                                                                                                         from Patent
                                                                                                                                                                                                                                                                                                                                                                 . 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:31688369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:27281727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 patent
                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                     Score 17; DB Pred. No. 2.2 0; Mismatches
                                                                                                                                                                                                                                                                                      ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 17; DB
Pred. No. 2.2
0; Mismatches
                                                                                                                                                                           EP1126025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SD
                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 bp
6537973.
                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Love, W.G.
          construct"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 6;
2.2e+05;
0;
                                                                                                                                                                                                                                                                                               DB 6; Le 2.2e+05;
                                                                                                                                                                                     DNA
                                                                           kinase
                                                                                                                                                                                                                                                                                                                                                                                                        and Dorr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and Hamilton, K.O.
                                                                                                                                                                                                                                                                                                         Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                           μį
                                                                                                                                                                                     PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT
                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,,</u>
                                                                                                                                                                                    10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JUN-2003
                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ·.
```

```
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 9
AX774418/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
   FEATURES
                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                           ይ
                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                            BD016021/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
Matches J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
                                                                                               artificial sequences.

1 (bases 1 to 20)

Bennett, F.C., Boggs, R.T. and Dean, N.M.

Oligonucleotide modulation of protein kinase C-epsilon

Patent: JP 2001224386-A 30 21-AUG-2001;

ISIS PHARMACEUTICALS INC

OS Artificial Sequence
PN JP 2001224386-A/30

PD 21-AUG-2001

PF 13-DEC-2000 JP 2000379218

PR 09-JUL-1993 US 08/089996, 22-FEB-1994 US 08/199779 PR

PR 09-JUL-1993 US 08/089996, 22-FEB-1994 US 08/199779 PR

PRANK C BENNETT, RUSSELL T BOGGS, NICHOLAS M DEAN PC

C12N15/09, A61K48/00, C12Q1/48, C12Q1/68, G01N33/15, G01N33/50, PC
           08/199779 P

PC G01N33/566,G01N33/573//A61K31/711,A61K31/712,A61K31/7125,

A61P35/00,

PC A61P43/00,A61P43/00,C12N5/10,C12N15/00.C1~~~~

FH Key Location/On-1-----

FT source
                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                           synthetic
synthetic
                                                                                                                                                                                                                                                                                                                                            BD016021
Oligonuci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                  BD016021
                                                                                                                                                                                                                                                                                       BD016021.1 GI:22557159 JP 2001224386-A/30. synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bennett, C.F. and Dean, N.
Oligonucleotide modulation of protein kinase
Patent: EP 1310555-A 30 14-MAY-2003;
ISIS PHARMACEUTICALS, INC. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequenc
AX77441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          synthetic construct artificial sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      synthet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX77441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45000
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43.6%;
.larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18
18
18.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                           cleotide modulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCAAGAGCTA 36
/organism='Artificial
Location/Qualifiers
                                                                                                                                                                                                                                                                             construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Artificial"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="synthetic construct"
|mol_type="unassigned DNA"
|db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:32486070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 17; DB
%; Pred. No. 2.2
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 17; DB 6; L
Pred. No. 2.2e+05;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 bp
EP1310555.
                                                                                                                                                                                                                                                                                                                                                         20 bp
                                                                                                                                                                                                                                                                                                                                         bp DNA linear
protein kinase C-ep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 6;
2.2e+05;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                         C-epsilon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       റ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20;
                                                                                                                              08/199779 PI
                                                                                                                                                                                                                                                                                                                                                      PAT 27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       o
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                synthetic
                                                                           D'd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

```
RESULT 12
BD017292/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
BD016140/c
LOCUS
                                                    KEYWORDS
SOURCE
                                                                                         DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                REFERENCE
                                                                               VERSION
                                                                                                                                                                                     엉
                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
    AUTHORS
                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sourc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             synthetic construct

SM synthetic construct
artificial sequences.

E 1 (bases 1 to 20)

S Bennett, F.C., Boggs, R.T. and Dean, N.M.
Oligonucleotide modulation of protein kinase C-zeta

L Patent: JP 2001224387-A 30 21-AUG-2001;
ISIS PHARMACEUTICALS INC
OS Artificial Sequence
PN JP 2001224387-A/30

PD 21-AUG-2001

PF 13-DEC-2000 JP 2000379249

PF 13-DEC-2000 JP 2000379249

PR 09-JUL-1993 US 08/089996, 22-FEB-1994 US 08/199779 PI
FRANK C BENNETT, RUSSELL T BOGGS, NICHOLAS M DEAN PC
C12N15/09, A61K31/7088, A61K48/00, A61P29/00, A61P43/00, PC
C07H21/00,
C07H21/00,
                       BD017292.1 GI:22558468
JP 2001231579-A/30.
synthetic construct
synthetic construct
artificial sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                              20 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17;
                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                                         BD016140.1 GI:22557278 JP 2001224387-A/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oligonucleotide modulation BD016140
1 (bases 1 t
Bennett, F.C.,
                                                                                         Oligonucleotide modulation of BD017292
                                                                                                                                                                                                                                                                                                                                                                                                                                                       OA
                                                                                                                     BD017292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BD016140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                      C C12Q1/48,C12Q1/68,G01N33/15,G01N33/50,G01N33/53,G01N33/566, PC G01N33/573//
C C12N5/10,C12N15/00,C12N5/00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGAAGTCAAGAGCTA
                                                                                                                                                                                    CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43.6%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                                                                                                                                                                             synthetic
                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                        /organism='Artificial Location/Qualifiers
                                                                                                                                                                                                                                                                                                        /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
             sequences.
1 to 20)
                                                                                                                                                                                                                                                                                                                                               . 20
                                                                                                                                                                                                                                                   43.6%;
100.0%;
Boggs, R.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    °,
                                                                                                                                                                                                                                     o
``
                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 17;
Pred. No.
                                                                                                                                                                                                                                                                Score 17;
                                                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                                    ore 17; DB 6; Le
red. No. 2.2e+05;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ore 17; DB 6; Loced. No. 2.2e+05; Mismatches 0;
  and
                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O
Hi
                                                                                                                     g
  Dean, N.M
                                                                                                      protein kinase C-eta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kinase
                                                                                                                                                                                                                                                               Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                       Sequence'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-zeta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                   PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>`</u>
                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-AUG-2002
                                                                                                                   27-AUG-2002
                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ы
Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
''
                                                                                                                                                                                                                                       0
••
```

. ...

```
RESULT 14
AR099689/c
LOCUS
                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
AR002639/c
                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                             JOURNAL FEATURES
                                                                                                                                밁
                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
           SOURCE
                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                       KEYWORDS
                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                       Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                        Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 17; Conser
                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligonucleotide modulation of Patent: JP 2001231579-A 30 2 ISIS PHARMACEUTICALS INC OS Artificial Sequence PN JP 2001231579-A/30 PD 28-AUG-2001 P 20003792 PF 13-DEC-2000 JP 20003792 PR 09-JUL-1993 US 08/08
                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                 Sequence 28
AR099689
AR099689.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 CCCGAAGTCAAGAGCTA 4
Unknown.
Unknown.
                                                                                                                                                                                                                                                                                       Capon, D. Chimeric pro life Patent:
                                                                                                                                                                                                                                                                                                                                                                                                 AR00263
Sequenc
AR00263
AR00263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PF 13-DEC-2000 JP 2000379234

PR 09-JUL-1993 US 08/089996,22-FEB-1994 US 08/199779 PI
FRANK C BENNETT, RUSSELL T BOGGS, NICHOLAS M DEAN PC
C12N15/09, A61K31/711, A61K31/712, A61K31/7125, A61K48/00, A61P29/ PC
00, A61P35/00,
PC A61P43/00, C07H21/00, C12Q1/48, C12Q1/68, G01N33/15, G01N33/50, I
                                                                                                                                                        ω
                                                                                                                                                                                22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H H H
                                                                                                                                                                                                                                                                                                                                                  Unclassified.
                                                                                                                                                                                                                                                                                                                                                                Unknown
                                                                     AR099689
                                                                                                                                                                                                                                                                                                                                                                         Unknown
                                                                                                                                                                              Similarity
22; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G01N3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          synthetic
H Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGF
                                                                                                                               GAGCTTCTAAAACTGGAAGTCGACAGTCAGT
                                                                                                                                                        GAATI
                                                                                                                                                                                                                                                                                                                         (bases 1 to 32)
on,D.J., Tian,H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ଦ
                                                                                                                                                                            42.6%;
larity 71.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43.6%;
larity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                   feration
                                                                                                                                                                                                                                                                                                                                                                                                   39.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3/50,
01N33/53,G01N33/566//C12N5/10,G01N33/68,C12N15/00,C12N5/00 CC
                                                                                                                                                                                                                                                                                                            J.J., Tian,H.,
                                                                                                                                                       TTTAAAACCCGAAGTCAAGAGCTAGT
                                                                                                                                                                                                                                                                                                                                                                                                               v • •
                                                                                                                                                                                                                                                                                                                                                                                                                          გ
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism='Artificial
Location/Qualifiers
1. .20
                                                                                                                                                                                                                                      /organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                         ; 5741899-A 28 21-APR-1998; ocation/Qualifiers
                                                                                                                                                                                                                                                                  .
ც
2
                                   GI:12809455
                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                         from patent US
                                                                                                                                                                                                                                                                                                                                                                                                   GI:3964193
                                                        patent
                                                                                                                                                                                                                                                                                                              comprising janus kinase for regulating celi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s; Score 17; DB; Pred. No. 2.2
                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                            Score 16.6; DB 6;
Pred. No. 2.8e+05;
); Mismatches 9;
                                                           SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of protein kinase 28-AUG-2001;
                                                          32 bp
6077947
                                                                                                                                                                                                                                                                                                                                                                                                                          5741899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6; Le
2.2e+05;
                                                                                                                                                        ص
ھ
                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>``</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence'
                                                                      linear
                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C-eta
                                                                      PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT
                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                     14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-1998
                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>,,</u>
                                                                                                                                                                              0
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
AX378298/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL FEATURES
                                                               뮍
Search completed: March 20, Job time : 1719 secs
                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                    Query Match 41.0%;
Best Local Similarity 64.7%;
Matches 22; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 42.6%; Score 16.6; DB 6; Best Local Similarity 71.0%; Pred. No. 2.8e+05; Matches 22; Conservative 0; Mismatches 9;
                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                         47 CAGAATTTTAAATCAGGTGGTCRCAATTAAGTA 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cohen, D., Blumenfeld, M., Chumakov, I., Abderrahim, H. Obesity associated biallelic marker maps Patent: WO 0206525-A 87 24-JAN-2002; GENSET (FR)
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX378298 47 bp
Sequence 87 from Patent WO0206525.
AX378298
AX378298.1 GI:19574148
                                                                                         മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kinase
Patent: US 6077947-A 28 20-JUN-2000;
Location/Qualifiers
1. .32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unclassified.
1 (bases 1 to 32)
1 (capon, D.J., Tian, H., Smith, D.H., Winslow, G.A. and Siekevitz, M.
Capon, D.J., Tian, H., Smith, D.H., Winslow, G.A. and Siekevitz, M.
DNA encoding an intracellular chimeric receptor comprising Janus
                                                                                CTGAATTTTAAAACCCGAAGTCAAGAGCTAGTA 39
                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
24
                                                                                                                                                                                                                                                                           Location/Qualifiers
1. .47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .32
/organism="unknown"
                                                                                                                                                                                              /note="99-26989-152 : polymorphic base C or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="unassigned DNA"
           2004,
                                                                                                                    Score 16; DB 6;
Pred. No. 4.3e+05;
1; Mismatches 11
              12:53:58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                    11;
                                                                                                                                                   Length 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 32;
                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                           and Bihain, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAT 18-MAR-2002
                                                                                                                                                                                                    크
                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                     ,,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
```

```
Title:
Perfect :
Sequence:
                                                                                                                                                                                                                                                                                                                   Minimum
Maximum
                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                              Database
                                                                                                                                                                                                                                                                                                       Post-processing:
                                                                                                                                                                                                                                                                                                                                      Total
                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                    Scoring table
          00000
                                                                              0000000000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic
    02:
                                                                                                                                                                                                               Pred. Nescore gand is
                                                                                                                                                                                                                                                                                                                                      number
                                                                                                                                                                                                                                                                                                                   D8
                                                                                                                                                                                                                                                                                                                                                                                      score
                                                                                                                                                                               Score
   seq
geq
                                                                                                                                                                     œ
                                                                                                                                                                                                                     No. is t
                                                                                                                                                                                                                greater than
derived by a
                                                                                                                                                                                                                                                                                                                                      O.f.
                                                                                                                                                                4 0
                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic
                                                                                                                                                                                                                                                                                                                  length:
                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                     hits
                                                                                                                                                                                                                                                                                                                                                                                 US-09.
39
1 taa:
                                                                                                                                                                                                                                        σσ4ωνΗ
                                                                                                                                                                                                                                                                                         Minimum
Maximum
Listing
   Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                  682709
                                                                                                                                                                                                                                                                                                                                                                                                                       March
                                                                                                                                                                                                                                     ssued_Patents_NA:*
/cgn2_6/ptodata/2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/2/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                              ssued
                                                                                                                                                                                                                                                                                                                                                                               taactctgaatttttaaaacccgaagtcaagagctagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Copyright
                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                  satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                  search,
                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                             -435-471B
                                                                                                                                                                                                                                                                                                                                                                                                                      20,
                                                                                                                                                                                                                                                                                                                                                seqs,
                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                           number of
                                                                                                                                                                                                              number of results predicted by chance to har or equal to the score of the result bein analysis of the total score distribution.
                                                                                                                                                                                                                                                                                          Match
Match
first
   2004,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                  using
                                                                                                                                                                                                                                                                                                                                                 277475446
                                                                                                                                                                                                                                                                                                                                                             Gapext
   22223444551344421434442
                                                                                                                                                                                                                                                                                          0%
1.00%
45 gi
US-09-422-978-563
US-08-089-996-30
US-08-478-177-30
US-08-488-177-30
US-08-481-072A-30
US-08-481-072A-30
US-08-481-066A-30
US-08-829-637A-30
US-08-829-637A-30
US-08-829-637A-30
US-10-025-139-30
US-10-025-139-30
US-10-025-139-30
US-09-481-003-28
US-09-481-003-28
US-09-481-003-28
US-09-481-003-28
US-09-894-844-132
US-09-894-844-133
US-09-894-844-133
US-09-894-844-133
US-09-671-317-775
US-09-290-452-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
US-09-290-338-21
                                                                                                                                                                                                                                                                                                                                                                                                                      06:38:30
                                                                                                                                                                                                                                                                                          summarie
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
¥
                                                                                                                                                                                                                                                                                                                                                             .
.
                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                    - 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                  model
                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                 residues
                                                                                                                                                                                                                                                                                                                                                                                                                     ٠.
                                                                                                                                                                                                                                                                                                                                                                                                       Search time 38 Seconds (without alignments) 569.555 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.1.6
Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ltd.
                                                                                                                                                                                                                                                                                                                                    œ
                                                                                                                                                                                                                                                                                                                                    74574
 sequence
                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                   to have being pr
                                                                                                                                                                                                                   printed,
563, Appl
30, Appl
31, Appl
132, Appl
133, Appl
133, Appl
133, Appl
133, Appl
21, Appl
21, Appl
21, Appl
21, Appl
21, Appl
```

RESULT 2
US-08-089-996-30/c
; Sequence 30, Application US/08089996
; Patent No. 5703054
; GENERAL INFORMATION:
APPLICANT: Nicholas Dean, C. Frank Bennett
TITLE OF INVENTION: Oligonucleotide Modulation of
TITLE OF INVENTION: Kinase C
NUMBER OF SEQUENCES: 62
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Woodcock Washburn Kurtz
; ADDRESSEE: Mackiewicz & No. 5703054ris

of f

Protein

밁

46

TCACTAAAAATTTTTTTCACCTKAAGTCATAAGCT 12 TAACTCTGAATTTTTAAAACCCGAAGTCAAGAGCT 35

Ŕ

μ

US-09-422-978-563

Query Match Best Local S Matches 24

47.7%; Similarity 68.6%; 24; Conservative

Score 18.6; D Pred. No. 66; 1; Mismatches

DB 4;

Length 47;

10;

Indels

0

Gaps

0;

24;

RESULT US-09-4 Seque Paten Paten APPL APPL CURR CURR CURR CURR EARL EARL EARL EARL FEAR NUMB SEQ II LOCO OTH	០០០០០០០ ៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤៤
-422-9 uence ent No PLICAN PLI	
2-978-563/c ce 563, Applica No. 6537751 L INFORMATION: CANT: Cohen, Da CANT: Blumenfel CANTION: REFERENCE: GENS NT APPLICATION ER APPLICATION TH: 47 : DNA NISM: Homo Sapi URE: /KEY: allele TION: 24 R INFORMATION:	
tion US iniel d, Mart Ilya Biallel ET.020C NUMBER: 1999-1 NUMBER: 1998-0 11796	241224445555555555555555555555555555555
/09422978 a ic markers for use in con P1 US/09/422,978 0-20 US 09/298,850 4-21 US 60/109,732 1-23 US 60/082,614 4-21 1-337: polymorphic base in con p1 US 60/082,614	US-08-488-271B-38 US-08-169-715-38 US-08-537-002A-6 US-08-863-010-6 US-09-024-429-6 US-09-863-010-10 US-09-671-317-683 US-09-671-317-683 US-08-171-389-517 US-08-173-936-517 US-08-482-080A-517 US-08-482-080A-517 US-09-354-947-517 US-08-148-058A-23 US-08-148-058A-23 US-08-148-058A-23 US-08-478-042-23
onstructing a high density.	Sequence 38, Appl Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 10, Appli Sequence 10, Appli Sequence 10, Appl Sequence 517, App Sequence 23, Appl

```
밁
                                                                                                                                                                                                                                                                                                                                                                                         US-08-478-178A-30/c
; Sequence 30, Application US/08478178A
; Patent No. 5882927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-089-996-30
                                                                                                                                                                                                                                                                                                                                                    ; Sequence 30, Application; Patent No. 5882927; GENERAL INFORMATION: Applicant: Nichola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 1930709
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 852,852
FILING DATE: March 16, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Rebecca Ralph Gaumond
REGISTRATION NUMBER: 35,152
REFERENCE/DOCKET NUMBER: ISIS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 17
FILING DATE: herewith
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 852,85
FILING DATE: March 16, 195
ATTORNEY/AGENT INFORMATION:
NAME: Rebecca Ralph Gaumor
                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Oligonucleotide I
TITLE OF INVENTION: Protein
NUMBER OF SEQUENCES: 121
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US.
                                                                                                                                                                     ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: DISKETT
                                                                                                SOFTWARE: WORDPERFECT CURRENT APPLICATION NUMBER: US
                                                                                                                                                                                                                                             ADDRESSEE:
STREET: Or
CITY: Phil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PS/2
OPERATING SYSTEM: I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid STRANDEDNESS: sing TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                          COMPUTER: IBM PS/2
OPERATING SYSTEM: 1
                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                 STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17;
                                                                                                                                                                                                                                   Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100
.7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : One Liberty Place
Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                             PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PA
                                                                                                                                                                                                                                                                                                                                                            Nicholas Dean,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          yes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WORDPERFECT 5.1
                                                                                                                             WORDPERFECT 5.1
                                                                                                                                                                                                                                                          Mackiewicz & No.
e Liberty Place -
                                                                                                                                                                         DISKETTE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISKETTE,
                                                                                                                                                                                                                                                                                                                  Oligonucleotide Modulation of Protein
121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PC-DOS
                                                                                                                                           PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08/089,996
                                         852,852
                                                                                                US/08/478,178A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35,152
R: ISIS-1154
                                                                                                                                                                         ເນ
ເກ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
.5
                            1992
                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INCH,
                                                                                                                                                                                                                                                                                                                                                            Frank Bennett
                                                                                                                                                                                                                                                            5882927ris
46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.44 Mb STORAGE
                                                                                                                                                                         1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1; ___
2.5e+02;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 o
••
                                                                                                                                                                                                                                                                                                                                 Kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,;
```

```
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TOPOLOGY: ; ANTI-SENSE: US-08-478-178A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
US-08-488-177-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                          ; ANTI-SENSE: US-08-488-177-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 5885970
GENERAL INFORMATION:
APPLICANT: Nichol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
    Matches
               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (;
INFORMATION FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 30 SEQUENCE CHARACTERISTICS:
LENGTH: 20
                                                                                                           INFORMATION FOR SEQ ID NO: 30
SEQUENCE CHARACTERISTICS:
LENGTH: 20
TYPE: DUC1
                                                                                                                                                                 TELEFAX: (2
INFORMATION FOR
                                                                                                                                                                                                                                                                       APPLICATION NO FILING DATE: ATTORNEY/AGENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 121
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & No. 5885970ris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 35,152
REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                          NAME: Paul K. Legaard
REGISTRATION NUMBER: 38,534
REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                               SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/488,177
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
COMPUTER: IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Nicholas Dean, C. Frank Bennett
TITLE OF INVENTION: Oligonucleotide Modula
TITLE OF INVENTION: Protein Kinase C
NUMBER OF SEQUENCES: 121
                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                          STRANDEDNESS:
                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30, Appl
5. 588597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17;
 17;
                 Simil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43.6%; Score 17; DB 2; L larity 100.0%; Pred. No. 2.5e+02; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             yes
                                                                                        linear
 43.6%; Score 17; DB 2; Loarity 100.0%; Pred. No. 2.5e+02; onservative 0; Mismatches 0;
                                                                             yes
                                                                                                                                                                                                                                                                       NUMBER: 852,852: March 16, 1992
T INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lication US/08488177
70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                         DISKETTE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                              PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                         ເມ
ເກ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30:
                                                                                                                                                                     30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISIS-1154
; 0
                                                                                                                                                                                                                              ISIS-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                        INCH,
                                                                                                                                                                                                                                                                                                                                                                                                                                          1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20;
                               Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
    Indels
  .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
--
   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
    0
```

20 CCCGAAGTCAAGAGCTA 36

g

20

```
Ş
                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                               ; ANTI-SENSE: US-08-481-072A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
US-08-481-072A-30/c
                                                                                                                                                                                     US-08-664-336-30/c
                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 30 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: (SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: herewith CLASSIFICATION: 514
PRIOR APPLICATION DATA: 852,85
APPLICATION NUMBER: 852,85
FILING DATE: March 16, 199
ATTORNEY/AGENT INFORMATION:
                                                                                TITLE OF INVENTION: OI NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Nicholas Dean, C. Frank Bennett TITLE OF INVENTION: Oligonucleotide Modulation TITLE OF INVENTION: Protein NUMBER OF SEQUENCES: 121
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: WORDPERF
CURRENT APPLICATION D
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Rebecca Ralph Gaumond REGISTRATION NUMBER: 35,152 REFERENCE/DOCKET NUMBER: IS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PS/2
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & No. 5916807ris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: si
                                     ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & No. 5922686ris
STREET: One Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                        30, Application US/08664336
5. 5922686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30, Application US/08481072A
o. 5916807
                                                                                                                                                                                                                                               20 CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                               20 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                        Similarity 100.7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                        Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PA
                                                                                           Nicholas Dean, C. Frank Bennett
VENTION: Oligonucleotide Modulation of
EQUENCES: 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                              уев
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WORDPERFECT 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISKETTE,
                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DATA:
                                                                                                                                                                                                                                                                                                                    43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852,852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/481,072A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35,152
?R: ISIS-1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ა
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
ს
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1992
                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                      Score 17; DB; Pred. No. 2.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INCH, 1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                    2.5e+02;
                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                  Length 20;
                                                                                                              Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kinase
                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ω
                                                                                                                                                                                                                                                                                                     <u>,</u>
```

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
US-08-481-066A-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08+664-336-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: ISIS TELECOMMUNICATION INFORMATION: TELEPHONE: (215) 568-3100 TELEFAX: (215) 568-3439 INFORMATION FOR SEQ ID NO: 30: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best
                                                                                                                                                                                                                                                                                                                                                                                Sequence 30, Application US/08481066A Patent No. 5959096 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATE: Marca
FILING DATE: Marca
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 089,996
FILING DATE: July 9, 1993
FILING DATE: July 9, 1993
Tegaard
                                                                                                                                                                                                                                                               APPLICANT: Nicholas Dean, C. Frank Bennett
TITLE OF INVENTION: Oligonucleotide Modulation of
TITLE OF INVENTION: Protein Kinase C
NUMBER OF SEQUENCES: 121
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & No. 5959096ris
STREET: One Liberty Place - 46th Floor
                                                                                                                          OPERATING SYSTEM: PC-DO SOFTWARE: WORDPERFECT! CURRENT APPLICATION DATA:
                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
COMPUTER: IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION
                           APPLICATION NUMBER: 852,852
FILING DATE: March 16, 1992
ATTORNEY/AGENT INFORMATION:
                                          CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: March 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                           CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Paul K. Legaard REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICAT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER
 NAME: Rebecca
REGISTRATION NI
                                                                                                  APPLICATION FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17;
                                                                                                                                                                                                           TRY: USA
19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                 Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                          PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3: DISKETTE, :
IBM PS/2
3YSTEM: PC-DO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                        YSTEM: PC-DOS
WORDPERFECT 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   уев
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WORDPERFECT 6.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER: 852,852
March 16, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER:
                                                                                                                NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ION DATA:
a Ralph Gaumond
NUMBER: 35,152
                                                                                                                                                                                   DISKETTE,
                                                                                          MBER: US/08/481,066A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOG-DG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                089,996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/08/664,336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38,534
                                                                                                                                                                                    ω
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ω
.
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17; DB 2; L
Pred. No. 2.5e+02;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ISIS-2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INCH,
                                                                                                                                                                                   INCH,
                                                                                                                                                                                     1.44 Mb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720 kb STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,</u>
```

Gaps

o ~:

```
RESULT 8
US-08-578-615A-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TOPOLOGY: ; ANTI-SENSE: US-08-481-066A-30
     Matches
                  Best
                           Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 601501.
Patent No. 601501.
Nichol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 30, Application US/08578615A Patent No. 6015892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                     TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTER TOTTO
                                                     08-578-615A-30
                                                                                                                                                                                     APPLICATION NUMBER: 08/089
FILING DATE: 09-JUL-1993
APPLICATION NUMBER: 08/199
FILING DATE: 22-FEB-1994
ATTORNEY/AGENT INFORMATION:
NAME: Paul K. Legaard
REGISTRATION NUMBER: 38,53
REFERENCE/DOCKET NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTERISTICS:
                                                                ANTI-SENSE:
                                                                                                                                                                                                                                                                                        CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 16-MAR-
                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: WORDPERFECT CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                        TYPE: nucleic acid
STRANDEDNESS: sing
TOPOLOGY: linear
                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Woodcour Place STREET: One Liberty Place
                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 11-JA
                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PS/2
OPERATING SYSTEM: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE:
                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                            Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      OUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 CCCGAAGTCAAGAGCTA 36
  13.6%;
Similarity 100.0%;
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nicholas
                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                           ss: single
linear
                                                                yes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    yes
                                                                                                                                                                                                                                                                                                                                                                           WORDPERFECT 6.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESS
                                                                                                                                                                                                                                                                                       MBER: 852,852
16-MAR-1992
                                                                                                                                                                                                                                                                                                                                      MBER: US/08/578,615A
11-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dean,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oligonucleotide 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43.6%;
100.0%;
                                                                                                                                                                                                                                                    -1993
08/199,779
                                                                                                                                                                                                                                                                           08/089,996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Washburn Kurtz Mackiewicz
Place - 46th Floor
                                                                                                                                                                                                  38,534
                                                                                                                                                                                                                                                                                                                                                                                                                 ω
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ņ
 0
  Score 17; DB
Pred. No. 2.5
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      °,
                                                                                                                                                                                        ISIS-1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ISIS-1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                INCH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Frank Bennett and eotide Modulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                  44 Mb
DB 3;
2.5e+02;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Le
2.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                  STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      °.
                         Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Russell, T. of Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ይነ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6015892ris LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . Boggs
KinaseC
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ,.
0
```

```
RESULT 9
US-08-829-637A-30/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>B</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 30
Patent No.
                                                                                                                                                                                                                                          FILING DATE: 06-JUN-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/468,569
FILING DATE: 06-JUN-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/089,996
FILING DATE: 09-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/058,023
                                                                                                                                                                                          FILING DATE: US 08/
PRIOR APPLICATION DATA:
APPLICATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL
                                  APPLICATION N
FILING DATE:
PRIOR APPLICATI
                                                                                                                                                                                                                                                                                                                                                                 APPLICATION FILING DATE: PRIOR APPLICAT
                                                                                                          FILING
PRIOR APE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF
                                                                  FILING DATE:
PRIOR APPLICAT
                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 07-JUN-
PRIOR APPLICATION DATA:
                                                                                                                                                                  PRIOR APPLICAT
APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE,
                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION FILING DATE: CLASSIFICATI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: I
                                                                                APPLICATION FILING DATE:
                        APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                        APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                        ING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
ANT: C. Fra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : One Liberty
Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PA
                                                                                                                                                                                                                                                                                                                                                                                           TION: 513
ATION DATA:
US 08/481,066
IE: 07-JUN-1995
                                                     یمتد: PCT/US91/00243
E: 11-JAN-1991
ATION DATA:
                 E: 13-AUG-1990
ATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΩZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    껃
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C. Frank Bennett
Phillip Dan Cook
Nicholas Dean
                                                                                                     NUMBER: US 07/852,852
: 16-MAR-1992
FION DATA:
                                                                                                                                                    FION DATA:
NUMBER: US 07/777,760
: 15-OCT-1991
                                                                                                                                                                                                                                                                                                                                                              NUMBER: US 08/470,129
: 06-JUN-1995
TION DATA:
NUMBER: US 07/436,358
: 11-JAN-1990
: INFORMATION:
                                                                                                                                                                                         NUMBER: US 07/777,007
                                                                                                                                                                                                                                                                                                                                                      NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lication US/08829637A
66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORDPERFECT 6.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              John W. Caldwell (28,937) Woodcock Washburn Kurtz Mackiewicz & No. 63: Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            enn Hoke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESS:
                                                                                                                                                                                                                                                                                                                                          MBER: US 08/469,851
06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OLIGONUCLEOTIDES WHICH HAVE
PHOSPHOROTHIOATE LINKAGES OF HIGH CHIRAL PURITY AND
WHICH MODULATE aI, aII, , k, n, AND ISOFORMS OF
PROTEIN KINASE C
136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/829,637A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
Մ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INCH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6339066ris
```

```
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΛÖ
                                                                                                                                                                                                                    엉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-254-322-30/c
                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-829-637A-30
                                                                                                                                                            US-10-025-139-30/c
                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                    Matches
                                                                                                                        GENERAL
                                                                                                                                  Sequence 30, Application US/10025139 Patent No. 6537973
                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL
         APPLICANT: Dorr, F. Andrew TITLE OF INVENTION: Oligonucleotide Modulation Of FILE REFERENCE: ISIS4954
CURRENT APPLICATION NUMBER: US/10/025,139
CURRENT FILING DATE: 2001-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Love, William
APPLICANT: Hamilton, Karen
TITLE OF INVENTION: Pharmaceutical Compositions
FILE REFERENCE: 4-21026/MA 2138/PCT
CURRENT APPLICATION NUMBER: US/09/254,322
CURRENT FILING DATE: 1999-03-04
EARLIER APPLICATION NUMBER: PCT/EP97/04796
EARLIER FILING DATE: 1997-09-03
NUMBER OF SEQ ID NOS: 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Nicklin, Paul APPLICANT: Phillips, Jud. APPLICANT: Love, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (215) 568-3439 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                              APPLICANT:
                                                                                                        APPLICANT: Bennett,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: yes
                                                                                                                                                                                                                                                                                                                                                                                                        EQ ID NO 30
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                              TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION
TELEPHONE: (21)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: IS LECOMMUNICATION INFORMATION: TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       e 30, Appircus
No. 6465439
INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                     INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                              ა
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 100 17; Conservative
                                                                                                                                                                                                                                                                      Similarity
17; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                     PatentIn Ver.
                                                                                                                                                                                                                CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                           CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09254322
                                                                            Holmlund,
                                                                                         Dean, Nicholas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             single
                                                                                                          <u>ი</u>
                                                                                                                                                                                                                                                                                                                                       Description of Artificial oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Judith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43.6%;
                                                                                                                                                                                                                                                                      ive
                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                 43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     2
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30:
                                                                                                                                                                                                                   4
08/829,637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o
;
                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -SISI
                                                                                                                                                                                                                                                                                  Score 17;
Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                       Mismat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
                                                                                                                                                                                                                                                                                    No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BG
                                                                                                                                                                                                                                                                                  DB 2.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.5e+02;
                                                                                                                                                                                                                                                                                  5e+02;
                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4
                                                                                                                                                                                                                                                                                                                                                   Sequence: synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 20;
                                                                                                                                                                                                                                                                                               Length 20;
                                                    Protein Kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                    വ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   `
```

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFO US-10-025-139-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                PCT-US93-02213-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US93-02213-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 30, Appl
GENERAL INFORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 30
 Matches
             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR PRIOR PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR PRIOR
                                                                                                                                 TELEFAX: (;
INFORMATION FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                     APPLICATION N
FILING DATE:
CLASSIFICATION
PRIOR APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF
                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
FORMATION FOR SEQ ID NO: 30:
                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                   ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                    ATTORNEY/AGEN
                                                                                                                                                                                                                                                                                                      CURRENT APPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OR FILING DATE: 1997-03-31

OR APPLICATION NUMBER: US 08/478,178

OR FILING DATE: 1995-06-07

OR APPLICATION NUMBER: US 08/089,996

OR FILING DATE: 1993-07-09

OR APPLICATION NUMBER: US 07/852,852

OR FILING DATE: 1992-03-16

DR FILING DATE: 1992-03-16
             Local
                                                                                                                                                                                                                                                                                                                OPERATING SI
SOFTWARE: V
                                                                                  STRANDEDNESS
                                                                                                                                                                                  REFERENCE/DO
                                                                                                                                                                                            NAME: Jane
REGISTRATION
                                                                                                                                                                                                                              APPLICATION FILING DATE:
                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                         COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION: Antisense Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17;
Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn
                                                                                                NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                  Philadelphia
PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INVENTION:

    Nicholas Dean, C. Frank Bennett
    INVENTION: Oligonucleotide Modulation of Protein
    INVENTION: Kinase C
    SEQUENCES: 54

                                                                                                                                                                                                                                                                                                                                                                                                                          One
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.6%;
nilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                   NUMBER: 852,8
: March 16, 19
IT INFORMATION:
                                                                                                                                                                                                                                                                              NUMBER: PC: 19930225
                                                             Yes
                                                                                                                                                                                                                                                                    ÖZ:
                                                                                                                                                                                                                                                                                                                YSTEM: PC-DOS
WORDPERFECT 5.0
                                                                                                                                                                                                                                                                                                                                        IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                       Woodcock Washburn Kurtz
Mackiewicz & Norris
Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lication PC/TUS9302213
                                                                                                                                                                                  OCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÀGTCAAGAGCTA 4
                                                                                                                                                                                                        Massey Licata
                                                                                                                                                                                                                                                                                                    MATION DATA:
                                                                         inear
                                                                                                                                                                                             NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESS:
                                                                                                                                                                                                                                                    ON DATA:
                                                                                                                                                                                                                                                                                                                                                  DISKETTE,
                                                                                single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
           43.6%;
100.0%;
                                                                                                                                                                                                                               852,852
16, 1992
                                                                                                                                                                                                                                                                                         PCT/US93/02213
                                                                                                                                                                                        32,257
                                                                                                                                                                                                                                                                                                                                                    ა
თ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
  0
•
            Score 17; DB 5; L
Pred. No. 2.5e+02;
                                                                                                                                                                                   ISIS-0872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                    INCH,
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                     1.44 Mb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; LC
2.5e+02;
0;
                                                                                                                                                                                                                                                                                                                                                    STORAGE
 <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 20;
                         Length 20;
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
  .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·
•
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ·
•
  0
```

```
CURRENI
APPLICATION
FILING DATE: nc.
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 852,852
FILING DATE: March 16, 1992
APPLICATION NUMBER: 08/089,996
FILING DATE: July 9, 1993
APPLICATION NUMBER: 08/199,779
FILING DATE: February 22, 1994
ATTORNEY/AGENT INFORMATION:
NAME: Rebecca Ralph Gaumond
REGISTRATION NUMBER: 35,152
REFERENCE/DOCKET NUMBER: 1515-1/
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TIEFAX: (215) 568-3439
TOR SEQ ID NO: 30:
TTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
PCT-US94-07770-30/c
; Sequence 30, Application PC/TUS9407770
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                RESULT 14
US-08-481-003-28/c
                                                                                                                                        В
                                                                                                                                                                  Š
                                                                                                                                                                                                                                                 ; TOPOLOGY:
; ANTI-SENSE:
PCT-US94-07770-30
                                                  Sequence
Patent No
                                                                                                                                                                                              Matches
                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Oligonucleotide Mod
TITLE OF INVENTION: Protein
NUMBER OF SEQUENCES: 119
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & Norris
STREET: One Liberty Place - 46th Flo
                                       Patent No. 5741899
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE,
MEDIUM TYPE: STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Nicholas D
APPLICANT: Russell T.
  APPLICANT:
               APPLICANT:
                          APPLICANT:
                                                                                                                                                                                                                                                                            TYPE: nucleic ac:
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PS
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                    28, Application
5. 5741899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                   ง
0
                                                                                                                                        20 CCCGAAGTCAAGAGCTA
                                                                                                                                                                                            l Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Philadelphia
                                                                                                                                                       CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGAAGTCAAGAGCTA
CAPON, DANI
TIAN, HUAN
SMITH, DOUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nicholas Dean,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                               yes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IBM PS/2
                                                                                                                                                                                                                                                                                          acid
single
 DOUGLAS H
                           DANIEL J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligonucleotide Modulation of
                                                                                                                                                                                                                      43.6%;
                                                                   US/08481003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT/US94/07770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C. Frank Bennett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                           0
•
                                                                                                                                                                                                                                                                                                                                                                                                     ISIS-1546
                                                                                                                                                                                                          Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INCH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Boggs
                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.44 Mb
                                                                                                                                                                                       DB 5;
2.5e+02;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                           ;
                                                                                                                                                                                          Gaps
                                                                                                                                                                                           0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-485-598-28/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; MOLECULE TY US-08-481-003-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 28, Application of the patent No. 6077947

GENERAL INFORMATION: CAPON, INTERPRETATE TIAN, HIT APPLICANT: SMITH, INTERPRETATE SMITH, INTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: SIEKEVITZ, MIRIAM
TITLE OF INVENTION: CHIMERIC RECEPTORS FOR RETITLE OF INVENTION: CELLULAR PROLIFERATION AND NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: KRUPEN, KAREN I
REGISTRATION NUMBER: 34,647
REFERENCE/DOCKET NUMBER: CELL 17
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 358-9600 x131
TELEPHONE: (415) 349-7392
INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                         APPLICANT: CAPON, DANIEL J
APPLICANT: TIAN, HUAN
APPLICANT: SMITH, DOUGLAS H
APPLICANT: WINSLOW, GENINE A
APPLICANT: SIEKEVITZ, MIRIAM
TITLE OF INVENTION: CHIMERIC RECI
TITLE OF INVENTION: CELLULAR PROJ
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: CELL GENESYS, INC.
STREET: 322 LAKESIDE DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE:
ATTORNEY/AGENT INFORMATION
ZIP: 94404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FORM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy |
COMPUTER: IBM PC com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                       STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PONDENCE ADDRESS:

ESSEE: CELL GENESYS, INC.

ET: 322 LAKESIDE DRIVE

: FOSTER CITY

E: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 71.0
22; Conservative
                                                                                                                                                                                                                                   FOSTER CALIFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCTTCTAAAACTGGAAGTCGACAGTCAGT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAATTTTTAAAACCCGAAGTCAAGAGCTAGT 38
                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, V
ICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lication US/08485598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER: US/08/382,846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER:
                                                                                                                                                                                                                                       FORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION:
                                                                                                                                                                                                                                                                         CITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42.6%; Score 16.6; DB 1; 71.0%; Pred. No. 4.1e+02; 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/08/481,003
                                                                                                                                                                                                                                                                                                                                                                                                                                RECEPTORS FOR REGULATING PROLIFERATION AND EFFECTOR FUNCTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGULATING
AND EFFECTOR FUNCTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>``</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
```

, 0

 $\gamma_{i'j'}$

```
Title:
Perfect so
Sequence:
                                                                                                                                                              Minimum
Maximum
                                                                                                                                                                                                                                                                                                                         Run
                                                                                                     Database
                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                          Post-processing:
                                                                                                                                                                                                                                                                                                                                            nucleic
                                                                                                                                                                                                                                                                                                                         on:
                                                                                                                                                                                           number
                                                                                                                                                              DB
BCD
                                                                                                                                                                                                                                                                       score:
                                                                                                                                                            bəs
bəs
                                                                                                                                                                                           of
1
                                                                                                                                                                                                                                                                                                                                           nucleic
                                                                                                                                                            length:
length:
                                                                                                                     : Minimum Match
  Maximum Match
  Listing first
                                                                                                                                                                                       hits satisfying chosen parameters:
             987654821
     10:
                                                                                                                                                                                                            3373863 seqs, 2124099041
                                                                                                                                                                                                                               Gapop 10.0 ,
                                                                                                                                                                                                                                                                        US-09-435-471B-9
39
                                                                                                                                                                                                                                                                                                                       March 20,
M_Geneseq_29Jan04:*
: geneseqn1980s:*
: geneseqn2000s:*
: geneseqn2001as:*
: geneseqn2001bs:*
: geneseqn2002s:*
: geneseqn2003as:*
: geneseqn2003bs:*
: geneseqn2003cs:*
                                                                                                                                                                                                                                                            taactctgaatttttaaaacccgaagtcaagagctagta
                                                                                                                                                                                                                                                                                                                                                                      Copyright
                                                                                                                                                                                                                                                                                                                                         search,
                                                                                                                                                               60
                                                                                                                                                                                                                              `o'
                                                                                                                                                                                                                                                                                                                      2004,
                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                         using sw
                                                                                                                                                                                                                               Gapext
                                                                                                                      0%
100%
45 SI
                                                                                                                                                                                                                                                                                                                       08:43:35
                                                                                                                        summaries
                                                                                                                                                                                                                                1.0
                                                                                                                                                                                                                                                                                                                                          model
                                                                                                                                                                                                            residues
                                                                                                                                                                                                                                                                                                                       ٠,
                                                                                                                                                                                                                                                                                                Search time 243 Seconds
(without alignments)
681.810 Million cell updates/sec
                                                                                                                                                                                          3308108
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ult No.	Sco	ch L	ength	DB	ID	Description
I	9	9 !		م إ	Z0531	51 ω
c 2	17.4	44.6	47	ω	AAZ66216	z66216 Human m
ω	7.	4.		ហ	027	100277 Hu
		ω ·		Ŋ	4968	36 PKC-beta
		'n		N	Q9790)3 PNA o
		ω ·		N	8419	90 PKC-be
		'n		N	V3553	30 Oligo
		ω		Ŋ	2259	91 Human p
		'n		N	X7855	3 Human
ы		'n		N	X8366	52 Human
		·		N	X1915	9,
۲J		'n		N	2729	Aaz27295 Human pro
μ		'n		σ	8806	33 Human p
⊢ ₄		'n		œ	1116	52 Human
Н	\vdash	'n		4	F7017	Aaf70175 Human TNF
μ		(L)		σ	0565	59 Human
c 17		₽		N	T3350	Aat33501 PCR prime
	•	Ν,		4	2738	38 Human
	μ.	<u>, </u>		8	0121	L
	Н	H		ტ	4083	39 Human
N	ហ	0.		თ	Q8219	94 Human CD
	•	0.		4	C8226	
	5	0		σ	0274	2
						_

New system for leukocyte expression profiling, diagnosing a disease, or monitoring (the rate of) progression of a disease, e.g. atherosclerosis or congestive heart failure, comprises diagnostic oligonucleotides.

499; Opp; English.

ion relates to a system for detecting gene expression, which one or two isolated DNA molecules that detect expression of a the gene corresponds to any of 8143 oligonucleotides 48Z08152) each having 50 base pairs (bp). The system is useful the expression profiling. It is particularly useful for a disease, monitoring (rate of) progression of a disease, therapeutic outcome, determining prognosis for a patient,

is useful

uuth J, Fry K, Matcuk G, /
Woodward R, Quertermous T,

Altman P, I

Prentice J,

Phillips J;

a	Ω	O	Ω						O	Ω			O	O	Ω	O	Ω				
									36												
			15		<u>ა</u>	'n		ហ	15.4	ູ •	_.	<u>ნ</u>		წ	ა		<u></u>	Ω	ហ •	ა	'n
80	œ	œ	ω.	9	9	9	9	9	39.5	9	9	0	0	0.	0.	0	0	0	0	0	0.
42	4 2	42	42	56	51	41	38	26	60	51	31	51	50	4 .	41	41	30	25	60	50	50
ίω	w	w	W	N	4	σ	N	7	Q	4	N	ហ	7	φ	ď	σ	4	σο	φ	თ	თ
516	523	314	482	156	224	241	453	063	ABN39178	520	791	020	317	797	500	926	156	919	037	495	136
165	5232	3142	4821	567	322	42413	t84539	0636	9178	5207	7919	100201	3177		5006	9267	75	9196	377	Abz04957 I	Abz01361 I
Novel str		Novel str	Novel str	Human bia	Human SNP	L1 factor	BIRK 10 P	ĸ	Human spl	Human sil	Nucleotid	Human sil		Candida e		Human ald		Human mic	Human spl	Human leu	Human leu

ALIGNMENTS

```
RESULT 1
ABZ05319
ID ABZ05319;
XX
AC ABZ05319;
XX
DT 09-JAN-2003 (first entry:
XX
DE Human leukocyte; gene expression congest:
KW T7; leukocyte; gene expression
CC comprises one or two isol
CC for leukocyte gene expression
CC gene, where the gene corr
CC (ABZ00010-ABZ08152) each
CC for leukocyte expression
CC gene, where the gene
CC for leukocyte expression
CC gene, where the gene
CC for leukocyte expression
CC for leukocyte expression
CC gene, where the gene
CC for leukocyte expression
CC for leukocyte expression
                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US047856.
                                                                                                                                                                                                                                                                                                                                                 2000US-0241994P.
2001US-0296764P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene expression profiling; allograft rejection;
ls; congestive heart failure; systemic lupus erythematosus;
chritis; osteoarthritis; cytomegalovirus; infection; probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expression profiling probe SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
d8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5310.
```

88888**%**&

0

```
RESULT 2
AAZ66216/c
ID AAZ66216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Best I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the inventance a variety of uses: they can be used for high density mapping of human genome, and in complex association studies and haplotyping stud which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and 3367, are not actually given a sequence in the Sequence Listing from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; identification; characterisation; diagnosis; single nucleotide polymorphism; SNP; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rejection, kidney alloatherosclerosis, congorheumatoid arthritis,
                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          predicting
to treatmer
                                                                                                                                                                                                                                                                                                                                    Novel biallelic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-APR-1998;
23-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                            AAZ65654 to
                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treatment
                                                                                                                                                                                                                                                                                                                  Of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                        2000-013267/01
                                                                                                                                                                                                                                                                                                                                                                                                        D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   map-related biallelic
                                                                                                                                                                                                                                                                              ₽
`.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                               GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                              Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACTCTGAATTTTAAAACCCGAAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGTTTGAATTTGTCAAATCCCAAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50 BP; 15
                                                                                                                                                                                                                                                                                                                                                                                                           Blumenfeld
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease complications
at in an individual. The
kidney allograft rejec
                                                                                                                                                                                                                                                                                                                 human genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                         AAZ69578 represent human biallelic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0082614P
98US-0109732P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-IB000822
                                                                                                                                                                                                                                                                                                                                   markers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers replace(24,C) /*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   se complications in an individual or monitoring response an individual. The diseases include cardiac allograft y allograft rejection, liver allograft rejection, congestive heart failure, systemic lupus erythematosus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /standard_name=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                            2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                           Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       osteoarthritis or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                    used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ü,
                                                                                                                                                                                                                                                                                                                                                                                                           Chumakov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ДB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19.4; D. Pred. No. 3.6e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>ب</u>
                                                                                                                                                                                                                                                                                                                                    construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "single nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 19.4; DB 6;
. No. 3.6e+02;
ismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                        ⊢
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cytomegalovirus infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ċ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NO:563
                                                                                                                                                                                                                                                                                                                                   a high density disequilibrium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Other;
                                                                                                                                                                                                                     markers from the present position 24 of their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polymorphism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          `.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                    invent
                                                                                                                                                  studies
                                                                             the
                       and
                                                                                                                                                                                 ion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ·,
```

Query Match Best Local S Matches 25

Simil

44.1%; larity 65.8%; Conservative

Score 17.2; DB 5; Pred. No. 2.8e+03; 0; Mismatches 13;

Length 51;

Gaps

. •

Sequence

 \square

P; 16 A; 15 C;

10 G; 10 T; 0 U; 0 Other;

```
RESULT 3
ABLO0277
ID ABLC
XX ABLO0277
AC ACC
XX ABLC
XX ABLC
XXX Hum
XXX Hum
XXX Hum
XXX AM
Imm
XXX AM
IM
XX AM
I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88 X C
                                              ABLO0010 to ABLO1104 represent human nucleic acid oligonucleotides comprising one or more single nucleotide polymorphisms (SNPS). ABB56531 to ABB56903 represent human peptides encoded by some of the SNP coligonucleotides. The sequences from the present invention can have immunosuppressive, cytostatic, antiinflammatory, neuroprotective and antimicrobial activities. Nucleic acids, polypeptides, oligonucleotides and antibodies from the present invention can be used for treating a subject suffering from, at risk for, or suspected of, suffering from a pathology ascribed to the presence of a sequence polymorphism. The pathology may be autoimmune diseases, inflammation, cancer, diseases of the nervous system, and infection by pathogenic microorganisms. The SNPs care also useful for determining which forms of a characterised polymorphism are present in individuals. The antibodies may be used in the detection, quantitation and/or cellular or tissue localisation of a polymorphic protein (e.g., for use in measuring levels of the polymorphic protein within appropriate physiological samples)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polymorphisms, e.g. autoimmun polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated human nucleic acids comprising one or more single nucleotide polymorphisms, useful for treating a subject suffering from a pathology, e.g. autoimmune diseases, ascribed to the presence of a sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              present inven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABL00277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200138586-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        autoimmune infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL00277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAY-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunosuppres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CURA-) CURAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              silent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Simila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              stand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCACTAAAATTTTTTTCACCTTAAGTCATAAGCT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.6%;
larity 68.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             949/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleotide polymorphism; SNP; polymorphism; cytostatic; sive; antiinflammatory; neuroprotective; antimicrobial; sease; inflammation; cancer; nervous system disease; lymorphic protein; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTGAATTTTAAAACCCGAAGTCAAGAGCT 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P; 19 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US032311.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           noncoding SNP oligonucleotide SEQ ID NO:268.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0167383P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              674pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 17.4; DB 3;
Pred. No. 2.3e+03;
0; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ë.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ď;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                      the polymorphic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
~:
```

```
Ş
 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
AAQ49686/c
ID AAQ49686 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                              Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                     Oligo-nucleotide(s) able to be hydridised with nucleic - useful as diagnostics and therapeutics for disease st with particular isozymes of protein Kinase C.
                                                                                                              diagnostics, therapeutics, prophylaxis and as research reagents. The numbers allocated to the oligonucleotides are relative to the first residue to be sequenced on the cDNA, which is 28 residues upstream ATG start codon. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                           The sequences given in AAQ49657-707 are antisense oligonucleotides which contain altered inter-sugar linkages, pref. phosphorothionate linkages. These oligomers bind with the protein kinase C (PKC) mRNA at the transcription initiation site, the translation initiation site, the 5' cap region, an intron/exon boundary, coding sequences or sequences in the 5' or 3'-untranslated regions. These oligonucleotides may be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antisense; oligonucleotide; inter-sugar linkag phosphorothionate linkage; PKC; transcription translation initiation site; 5' cap region; in diagnosis; therapeutics; prophylaxis; ss.
                                                                                                                                                                                                                                                Claim 6; Page 19; 64pp; English.
                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                Bennett
                                                                                                                                                                                                                                                                                                                                                                                             16-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                           30-SEP-1993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9319203-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                   25-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PKC-beta type
                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAR-2003
25-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ49686
                                                                                                                                                                                                                                                                                                                        1993-320768/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  feature
                       20
                                              17;
                                                                                                                                                                                                                                                                                                                                              CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N
                                             13.6%;
Similarity 100.0%;
L7; Conservative
               CCCGAAGTCAAGAGCTA
CCCGAAGTCAAGAGCTA
                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTCAGAACTTTTTCACCCCGAACTGGAGAAGGAGCA 43
                                                                                           BP;
                                                                                                                                                                                                                                                                                                                                               Dean N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ħ
                                                                                                                                                                                                                                                                                                                                                                                             92US-00852852.
                                                                                                                                                                                                                                                                                                                                                                                                                   93WO-US002213.
                                                                                            w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifier
1. .20
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "Phosphorothionate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3'-UTR binding
                                                                                           A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                            σ
                                                                                           Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                            ហ
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP.
                                                                                           G;
                                             0;
                                             Score 17; DB Pred. No. 2.9

O; Mismatches
                                                                                            7 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligomer
                                                                                           0
                                                                                           Ų;
                                                        DB 2; 1
2.9e+03,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linkage; protein kinase iption initiation site; ion; intron/exon boundary
                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2160-2141
                                                                                           Other;
                                           °,
                                                                   Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39
                                              Indels
                                                                                                                                                                                                                                                                                    eic acids
e states a
                                                                                                                                                                                                                                                                                    associated
                                            <u>,</u>
                                                                                                                                                                                                                                                                                               encoding
                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                   The
                                                                                                                             Offi
                                                                                                                                                                                                                                                                                               DXA
                                                                                                                             the
                                                                                                                                                                           the
                                            <u></u>?
```

RESULT 5 AAQ97903/c

Ś

20

CCCGAAGTCAAGAGCTA 36

Matches

l Similarity 17; Conserv

Conservative

, ,

Mismatches

, ,

Indels

0;

Gaps

0;

2.9e+03; DB 2;

Length 20;

43.6%; 100.0%;

Score 17; Pred. No.

Query Match Best Local

```
New peptide nucleic acid (PNA) oligomers are provided which (a) consist of naturally occurring nucleobases covalently bound to a polyamide backbone and (b) hybridise to the translation initiation AUG region, coding region, 5' untranslated region (5' UTR) or 3' untranslated region (3' UTR) of PKC-alpha or its isoforms. The PNAs can be used to target RNA and single stranded DNA (ssDNA) to produce antisense-type gene regulation moieties. They inhibit expression of PKC-alpha and its isoforms (including beta, gamma, delta, epsilon, zeta and eta) and so are useful for treating and diagnosing cell proliferation and differentation processes such as neoplastic, hyperproliferative and inflammatory diseases. PNA oligomers have high affinity for complementary single stranded DNA. They are also able to form triple helices in which a first PNA strand binds with RNA or ssDNA and a second PNA strand binds with the resulting double helix or with the first PNA strand. The PNAs possess no significant charge and are water soluble, which facilitates cellular uptake. Futher, since they contain amides of non-biological amino acids, they are biostable and resistant to enzymatic degradation by proteases. The present sequence targets the 3' UTR region of PKC-beta isoform II.
                                                                                                                                                                                                                                                                                                                                                                                                          New peptide nuc
isozyme(s) - us
disease, e.g. c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide nuclei cell prolifera triple helix;
 Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1995-0820
                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-FEB-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9503833-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PNA oligomer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-2003
17-OCT-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ97903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             feature
                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                           Page
  ВP;
                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid oligomers specific for protein kinase C useful as anti:sense molecules for treating PKC mediated cancer, psoriasis and inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               targetting 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ic acid; PNA; PKC-alpha; protein kinase C; ss; ation; cell differentiation; isozyme; antisense; cancer; psoriasis; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40/11.
                                                                                                                                                                                                                                                                                                                                                                              261; 287pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93US-00099098.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94WO-US008465.
  3
A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "at least one (and preferably all) of the backbone subunits are composed of N-acetyl N-(2-aminoethyl)glycine peptide residues, the nucleobase being attached covalently to the acetyl group and the peptide linkage being formed by condensation of the glycine carboxy group of one residue with the amino group of the 2-aminoethyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          moiety in the next residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
5 C; 5 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UTR region of PKC-beta isoform II.
                                                                                                                                                                                                                                                       target RNA regulation
                                                                                                                                      the
```

о 0

```
RESULT 6
AAQ84190/c
ID AAQ84190;
XX
AC AAQ84190;
XC AAQ84190;
XC AAQ84190;
XX
DT 25-MAR-2003 (revise
DT 21-SEP-1995 (first
XX
DE PKC-beta type II ant
XX
Antisense; protein k
XX
PKC-beta type II ant
XX
Synthetic.
XX
Synthetic.
XX
PN
W09502069-A1.
XX
PP
19-JAN-1995.
XX
O8-JUL-1994; 94WO-
XX
XX
O9-JUL-1993; 93US-
PR
22-FEB-1994; 94WO-
XX
DR
WPI; 1995-066911/09.
XX
Claim 13; Page 27; 1
XX
DR
CC The sequences given
CC Thes equences given
CC These antisense mole
CC These antisense mol
g
                                                                                                                                                                                                                                                                                   The sequences given in AAQ84190-94 are oligos which are antisense to the protein kinase C-beta (PKC-beta) type II cDNA. These oligos are antisense IC protein kinase C-beta (PKC-beta) type II cDNA. These oligos are antisense IC II PKC-beta cDNA's are identical at the 5' end but diverge at the 3' end. IC These antisense molecules may be used in modulating the expression of the 5'- or 3'-untranslated regions of the PKC gene, or the translation of initiation site, or the coding region. These oligos may be used in the 10 conditions associated with PKC genes and for treatment of animals which have 11 conditions associated with PKC, esp. hyperproliferative diseases such as 12 conditions at least one phosphorothicate linkage and/or at least 12 cone of the nucleotides comprises a modification on the 2' position of the 12 sugar, esp. a 2'-0-methyl or a 2'-0-propyl modification. (Updated on 25-
                                                                                                     Query Match 43.0
Best Local Similarity 100
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modulation; expression; isozyme; hybridise; 5' UTR; hi 3' untranslated region; translation initiation site; chosphorothicate linkage; 2'-O-methyl modification; 2'-O-propyl modification; ss.
                                                                                                                                                                                                                                                                   oligos may contain at least one phosphorothicate linkage one of the nucleotides comprises a modification on the sugar, esp. a 2'-O-methyl or a 2'-O-propyl modification MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oligo:nucleotide(s) hybridisable with Protein Kinase C mRNA or also novel PKC-alpha 3'-UTR sequence, useful for diagnosis and of hyperproliferative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1995-066911/09.
                                                   20
                                                 CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boggs RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           II antisense oligo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93US-00089996
94US-00199779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94WO-US007770.
                                                                                                                                                                                                                A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                        43.6%;
                                                                                                                                                                                                                ហ
                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dean NM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                  Ų
                                                                                                     0
                                                                                                                                                                                                                ü
                                                                                                                              Score 17;
Pred. No.
                                                                                                                                                                                                                7
                                                                                                     red. No. 2.9e+03;
Mismatches 0;
                                                                                                                                                                                                                H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                binds
                                                                                                                                                                                                                0
                                                                                                                                                                                                             <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ö
                                                                                                                                                                                                                0
                                                                                                                                                                                                                Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA
                                                                                                        0;
                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bases
                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eta;
                                                                                                                                                        20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2141-2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      epsilon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene -
treatment
                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and type
le 3' end.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              isense
                                                                                                     0
```

RESULT 7 AAV35530/c

sapiens.

```
RESULT 8
AAX22591/c
ID AAX22591;
XX
AC AAX22591;
XX
DT 27-MAY-19;
XX
DE Human prot
XX
KW Protein k:
KW hyperprol:
KW hyperprol:
KW brain; gl:
XX
OS Synthetic
OS Homo sapic
                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                           This represents an oligonucleotide sequence that is specifically hybridisable with DNA or RNA derived from a protein kinase C (PKC) gene, entrapped in sterically stabilised liposomes. Compositions comprising such oligonucleotides can be used in the treatment of PKC disorders and for modulating the expression of PKC in cells. They can be used in the diagnosis and treatment of disorders associated with PKC, particularly neoplastic, inflammatory and hyperproliferative disorders such as cancer or psoriasis. The compositions retain high activity after prolonged circulation in the bloodstream and exhibit reduced accumulation of
    Synthetic
Homo sapi
                                     Protein kinase C; PKC; human; antisense; primer; inhibitor; treatment; hyperproliferative condition; cancer; colorectal; breast; bladder; lung; brain; glioblastoma multiforme; skin; psoriasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligo:nucleotide composequence hybridisable stabilised liposomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein kinase C; PKC; target; hybridisation; human; liposome; sterically stabilised; neoplastic disorder; inflammatory disorder; hyperproliferative disorder; cancer; psoriasis; PKC-beta; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligo ON30 tar
                                                                                      Human protein
                                                                                                                                       AAX22591;
                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                 oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nicklin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-MAR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9809633-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV35530 stand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NOVS)
                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21; Page
                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                         1 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ja,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOVARTIS AG
                                                                                                                                                              standard;
                                                                                                                                                                                                                            CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                    CCCGA
                                                                                                                                                                                                                                                                                                                         8岁;
                                                                                                                                                                                                                                                                        43.6%;
.larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Phillips
                                                                                                                                                                                                                                                    AGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ard; DNA;
                                                                                       kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geted to human protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; 25pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96GB-00018376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97WO-EP004796
                                                                                                                                                                                                                                                                                                                           w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         compositions for sable to protein !
                                                                                                                                                                                                                                                                                                                                                in non-target
                                                                                                                                                                                                                                                                                                                           Þ
                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                           ហ
                                                                                      C antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JA,
                                                                                                                                                                                                                                                                                                                          <u>..</u>
                                                                                                                                                               0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 BP.
                                                                                                                                                                                                                                                                                                                           ហ
                                                                                                                                                                                                                                                    36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Love WG,
                                                                                                                                                                                                                                                                                                                        <u>۾</u>
                                                                                                                                                                                                                                                                         Score 17; DB 2; L
Pred. No. 2.9e+03;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                 organs
                                                                                                                                                                                                                                                                                                                            7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           r protein
kinase C
                                                                                                                                                                                                                                                                                                                         ⊬<del>]</del>
                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hamilton KO;
                                                                                                                                                                                                                                                                                                                        ₫;
                                                                                                                                                                                                                                                                                                                                                 such as the
                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         kinase C disorders
gene entrapped in :
                                                                                                                                                                                                                                                                                                                           Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            റ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PKC)-beta type
                                                                                                                                                                                                                                                                                                  Length 20;
                                                                                       #30.
                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                   liver and kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         s - comprising
sterically
                                                                                                                                                                                                                                                                          0 :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĦI.
                                                                                                                                                                                                                                                                         Gaps
```

<u>,</u>

```
RESULT 9
AAX78553/c
ID AAX78553;
XX
AC AAX78553;
XX
AC AAX78553;
XX
DT 03-SEP-1999 (first entry)
XX
DE Human PKC-beta type II ol:
XX
KW PKC; human; PKC-alpha; pr:
KW PKC-beta type I; PKC-beta
KW PKC-beta type I; PKC-beta
KW PKC-opsilon; PKC-zeta; ant
KW PKC-opsilon; PKC-zeta; ant
KW PKC-opsilon; PKC-zeta; ant
KW PKC-opsilon; PKC-alpha; pr:
KW PKC-beta type I; PKC-beta
KW PKC-beta type II ol:
XX
DS:
PHOTOLOGICAL PROPERTY OF THE PROPERTY OF THE PKC-beta
RW PKC-alpha; pr:
KW PKC-beta type II ol:
XX
PKU PKC-beta type II ol:
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating Epsoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                       PKC; human; PKC-alpha; primer; protein kinase C; expression modulator; PKC-beta type I; PKC-beta type II; PKC-gamma; PKC-eta; PKC-delta; PKC-epsilon; PKC-zeta; anti-inflammatory; cytostatic; antisense targeting; isozyme; growth control; hyperproliferative disease; colon cancer; glioblastoma; bladder cancer; inflammatory condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention describes antisense oligonuclectides that specifically bind to human protein kinase C (PKC) mRNA. These oligonuclectides can be used to inhibit PKC mRNA and therefore be used to treat PKC-related hyperproliferative conditions, e.g. cancer, especially colorectal cancer, breast cancer, bladder cancer, lung cancer, or brain cancer (preferably glioblastoma multiforme). The products of the invention may also be used to treat skin cancer and psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human protein kinase C antisense oligonucleotides - treating PKC-related hyperproliferative conditions e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-MAR-1992;
09-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5885970-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1999-228583/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>ა</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bennett CF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Col
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
                                                                                                     92US-00852852
93US-00089996
                                                                                                                                                                           96US-00664336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92US-00852852
93US-00089996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95US-00488177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            II oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43.6%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ψı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; 5 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2; Le
2.9e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ,.
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      o
••
```

human the ce

an protein cells with

with

invention describes a method of inhibiting the expression of in kinase C (PKC) in cells. The method comprises contacting ith an antisense oligonucleotide which has up to 50 nucleotide

contacting 50 nucleotide

The present

New for

diagnosis antisense

oligonucleotides specific for human protein kinase and treatment of cancer and psoriasis.

Ω

useful

Claim 1;

C01

Н

5; 54pp;

English.

```
RESULT 10
AAX83662/c
ID AAX83662
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
Matches 1
                                                                                              WPI;
                                                                                                                      Dean
                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic activity and are used for antisense targeting to modulate the expression of PKC or of a particular PKC isozyme or set of isozymes in cells or tissues. The products of the invention also hybridise with nucleic acids involved in the modulation of PKC expression, which is known to be involved growth control in hyperproliferative diseases e.g. colon cancer, glioblastoma and bladder cancer as well as in inflammatory conditions e.g. psoriasis. Due to their specificity the oligonucleotides are able to overcome the problems of toxicity associated with previous agents designed to modulate PKC expression
                                                                                                                                                                                                                                             US5916807-A.
                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                16-MAR-1992;
09-JUL-1993;
                                                                                                                                                                                                 07-JUN-1995
                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                              AAX83662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                      29-ЛИМ-1999.
                                                                                                                                                                                                                                                                                                  hybridisation;
                                                                                                                                                                                                                                                                                                                                                        27-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               expression of, alpha, beta ty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotides targetted against nucleic C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The oligonucle
cytostatic act
                                                                                                                                           (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ö
                                                                                                                     Z
                                                                                                1999-4038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999-4044
                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention
                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Simila:
17; Cor
                                                                                                                                                                                                                                                                                                           protein
                                                                                                                                           SISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ention describes novel oligonucleotides (AAX78524-X78644) havinucleotides hybridisable with, and able to modulate the on of, a nucleic acid encoding protein kinase C and its isozymeta type I, beta type II, gamma, eta, delta, epsilon and zeta. onucleotides of the invention have anti-inflammatory and
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGAAGTCAAGAGCTA 4
                                                                                                                     Bennett CF;
                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       င္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                           PHARM INC.
                                                                                               17/34.
                                                                                                                                                                                                                                                                                                                                                        first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                   kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71/34.
                                                                                                                                                                92US-00852852.
93US-00089996.
                                                                                                                                                                                                95US-00481072.
                                                                                                                                                                                                                                                                                               kinase C; PKC; antisense oligonucleotide; diagnosis; ss; cancer; psoriasis; hyperproliferative disease; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41-42; 56pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Þ
                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                 C antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ü
                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ហ
                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ຸດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 17; DB 2; Le Pred. No. 2.9e+03; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 U; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acids encoding protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                 ID NO:30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isozymes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              having
```

0

```
RESULT 11

AAX19156/c

ID AAX19156 s

XX

AC AAX19156;

XX

AC AAX19156;

XX

DT 20-MAR-200

DT 14-MAY-199

XX

DE Human PKC-

XX

Human; PKC

KW tumour; ir

XX

Synthetic.

OS Synthetic.

OS Homo sapic

XX

PN US5882927-

XX

PN US5882927-

XX

PF 07-JUN-199

XX

PF 07-JUN-199

XX

PF 09-JUL-199

XX

PF 09-JUL-199

XX

PF New synth

PT (PKC)-alpl

PT (PKC)-alpl

PT with abno:

XX

PT (PKC)-alpl

PT with abno:

XX

PT New synth

PT (PKC)-alpl

PT with abno:

XX

PT New synth

CC The preser

CC The preser

CC Sigonucle

CC oligonucle

CC beta, -gar

CC beta, -gar

CC beta, -gar

CC the PKC ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         units. AAX83633 to AAX83720 represent specifically claimed antisense oligonucleotides for use in the method of the invention. The antisense cliponucleotides modulate hybridize to messenger RNA from the PKC gene cliponucleotides modulation of expression of the PKC gene. This means they can be used for diagnosis, therapeutic or prophylactic treatment of PKC associated diseases such as cancer and psoriasis, and as research cliponers. Abnormal proliferative states in tissue from patients suspected cliponers. Abnormal proliferative disease e.g. cancer, psoriasis can be diagnosed. Tumours associated with PKC can be distinguished from tumours continuours associated to allow an efficacious treatment regime to be used. The antisense oligonucleotides have specific activity so are concluded to modulate PKC activity without producing side effects and with cliponerse concludes the process of the present other oligonucleotides used in examples from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local &
Matches 17
The present invention specifically describes antisense oligonucleotides of up to 50 nucleotides in length which specifically bind human protein kinase C-alpha (PKC-alpha) mRNA. AAX19127 to AAX19247 represent antisense oligonucleotides from the present invention which bind human PKC-alpha, beta, -gamma, -delta, -epsilon, -zeta and -eta. The antisense oligonucleotides modulate the expression of the PKC gene (i.e. inhibit the PKC gene). The antisense oligonucleotides can be used to diagnose
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; PKC; protein kinase phosphorothioate linkage; ltumour; inhibition; ss.
                                                                                                                                                                             New synthetic oligonucleotides inh (PKC)-alpha - useful for treating with abnormal PKC expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US5882927-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-MAR-2003
14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                              Example 4; Col 16; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                           16-MAR-1992;
09-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                16-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                     1999-214073/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PKC-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                          SISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                        Bennett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43.6%;
nilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
                                                                                                                                                                                                                                                                                                                          PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      type
                                                                                                                                                                                                                                                                                                                                                           92US-00852852.
93US-00089996.
                                                                                                                                                                                                                                                                                                                                                                                                             95US-00478178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         w
                                                                                                                                                                                                                                                                                        CF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΗI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; diagnosis; ant:
hyperproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                дĦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>ن</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17;
Pred. No.
                                                                                                                                                                                            inhibiting expression of protein kinase ing and diagnosing conditions associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2; Le
2.9e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antisense oligonucleotide;
tive disease; cancer; psori
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NO:30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

Query

Sequence

₿₽;

3 A;

ហ

<u>Ω</u>

ហ

<u>ი</u>

7 T; 0

;

0

Other;

43.6%;

Score

17;

DB

<u>ب</u>

Length

associated with inflammatory co (glioblastoma,

conditions

bladder,

breast,

ression, such as hyperproliferative and including psoriasis, tumours and cancer breast, colon and lung cancer)

Š

```
RESULT 12
AAZ27295/c
ID AAZ27295;
XX
AC AAZ27295;
AC AAZ27295;
AC SAAC AAZ27295;
AC SAAC AAZ27295;
AC SAAC AAZ27295;
AC AAZ27295;
AC SAAC AAZ27295;
AC AAZ27295;
AC AAZ27295;
AC SAAC AAZ27295;
AC AAZ27296;
AC AAZ27296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 17
                                                                                  The present invention describes antisense oligonucleotides up to 50 nucleotides in length which specifically bind mRNA encoding human prote kinase C (PKC). AAZ27266 to AAZ27386 represent human PKC antisense oligonucleotides used in the exemplification of the present invention. The antisense oligonucleotides are useful for the treatment of diseases associated with PKC expression, such as hyperproliferative and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   abnormal proliferative states in tissue or other samples from patients suspected of having a hyperproliferative disease e.g cancer or psoriasis. The antisense oligonucleotides can be used to distinguish PKC-associated tumours and to detect and diagnose PKC expression (through the use of 32P labeled antisense oligonucleotides). Radiolabeled antisense oligonucleotides can also be used to perform autoradiography of tissues to determine the localization, distribution and quantitation of PKC expression for research, diagnostic and therapeutic purposes. The use of the antisense oligonucleotides eliminate the side effects associated with prior art methods because it modulates the amount of PKC protein made from the gene rather than inhibiting the enzyme itself. (Updated on 20-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; protein kinase C; PKC; diagnosis; antisense oligonucleotide; phosphorothioate; hybridisation; isozyme; target; inflammation; hyperproliferative disorder; psoriasis; tumour; cancer; glioblastoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-MAR-1992;
09-JUL-1993;
                                                                                                                                                                                                                                                                                  Claim 1; Col 15; 56pp; English.
                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotides useful for treatment of hyperproliferative and inflammatory conditions including psoriasis, tumors and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-SEP-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5959096-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ27295;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                             1999-5610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 Simila
17; Co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           вP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dean N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rrect PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nservative
                                                                                                                                                                                                                                                                                                                                                                                                                               76/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92US-00852852.
93US-00089996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95US-00481066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 з
Д,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C beta antisense oligonucleotide #10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; 5 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 2.9e+03;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
⊢
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ς.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             o
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                              protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
;
```

0

```
RESULT 13
ABL90883/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                              11-JAN-1991;
15-OCT-1991;
16-OCT-1991;
16-MAR-1992;
05-MAY-1993;
09-JUL-1993;
29-AUG-1994;
07-JUN-1995;
                         The invention comprises antisense oligonucleotides designed to bind mRNA encoding a human protein kinase C (PKC) isoform (i.e. PKC-alpha, PKC-beta type I, PKC-beta type II, PKC-gamma, PKC-delta, PKC-epsilon, PKC-zeta, and PKC-eta). The antisense oligonucleotides of the invention are useful for modulating the expression of the PKC isoforms. The antisense oligonucleotides are useful for treating hyperproliferative conditions (e.g. tumour, glioblastoma, bladder cancer, breast cancer, colon cancer and lung cancer), and inflammatory conditions (e.g. psoriasis). The antisense oligonucleotides of the invention are also useful for detection and diagnosis of PKC expression. The present sequence represents a human PKC antisense oligonucleotide of the invention. NOTE: The present
                                                                                                                                                                                                                      New antisense oligobinds mRNA encoding hyperproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-JAN-19
13-AUG-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0883/c
ABL90883
                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; PKC antisense oligonucleotide; protein kinase C; PKC-beta type I; PKC-beta type II; PKC-gamma; PKC-delta PKC-zeta; PKC-eta; PKC expression modulation; ss; hyperproliferative condition; tumour; glioblastoma; blabreast cancer; colon cancer; lung cancer; inflammatory psoriasis; phosphorothioate backbone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US6339066-B1
                                                                                                                                                                                                                                                                                                                          (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                        2002-215022/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \mathbf{r}
                                                                                                                                                                                                                                                                                                CF,
                                                                                                                                                                                                                                                                                                                         SISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; 0661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100.7; Conservative
                                                                                                                                                                                  Col 44; 77pp;
                       contains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _<sup>5</sup>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                  nse oligonucleotide having nucleoside units which specifically encoding human protein kinase C isoform, useful for treating ferative and inflammatory diseases e.g. psoriasis, tumor and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                               Dean NM,
                                                                                                                                                                                                                                                                                                                         PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                              90US-00463358.

90US-00566977.

91WO-US000243.

91US-00777760.

91US-007777007.

92US-00852852.

93US-00058023.

93US-00089996.

94US-00297703.

95US-00481066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-00829637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                      phosphorothicate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                              Cook PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  med. No. 2.9
                                                                                                                                                                                                                                                                                                Hoke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            II)
                      backbone
                                                                                                                                                                                                                                                                                                ູດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.9e+03;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     kinase C; F
PKC-delta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bladder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                idder cancer;
condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PKC; PKC-alph
; PKC-epsilon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o
;-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PKC-alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

Query Match

Sequence

20

Û A

ហ

ü

ហ

G.

7

⊣

0

Ç,

0

Other;

RESULT 15
AAF70175
ID AAF70
XX

AAF70175

rd;

DNA;

26

ЧH

ద

Ś

43.6%;

Score

17;

DB

9

Length 20;

```
RESULT 14
ACH11162/c

ID ACH11162:

XX
AC ACH11162:

XX
AC ACH11162:

XX
AC ACH11162:

XX
COB OB-OCT-20:

XX
Human; ss
KW Human; ss
KW inflammat
KW non-Hodgk
KW non-Hodgk
KW Dreast ca:

XX
Homo sapic
XX
VX
DN US6537973
XX
PN US6537973
XX

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                              Query Match
Best Local
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-MAR-1992;
09-JUL-1993;
07-JUN-1995;
31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; ss; ant inflammation; non-Hodgkin's
                                                                                                                                                                                                                                 The invention relates to a new pharmaceutical composition comprising: (a) an oligonucleotide sequence having up to 50 base pairs (bp); and (b) carboplatin and paclitaxel, cisplatin and gemcitabine, 5-fluorouracil and leucovorin, or docetaxel. The pharmaceutical composition is useful for treating diseases associated with protein kinase C such as hyperproliferative and inflammatory conditions e.g. psoriasis, tumours and cancer e.g. non-small cell lung cancer, non-Hodgkin's lymphoma, glioblastoma, bladder cancer, lung cancer, colon cancer, breast cancer, ovarian cancer and pancreatic cancer. The present sequence represents an antisense oligonucleotide targeted against protein kinase C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New pharmaceuti
small cell lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US6537973-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                 Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-53108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 17; Conserv
                                                                                                                       Similar
CCCGAAGTCAAGAGCTA 4
                                                                                                                                                                                                  20
                                               CCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
6
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dean NM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00025139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cisense; PKC; protein kinase C; hyperproliferation; tumour; psoriasis; cancer; non-small cell lung cancer; lung cancer; lymphoma; glioblastoma; bladder cancer; colon cancer; ovarian cancer; pancreatic cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92US-00852852.
93US-00089996.
95US-00478178.
97US-00829637.
                                                                                        43.6%; Score 17;
ity 100.0%; Pred. No.
servative 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cal composition, useful for treaticancer or non-Hodgkin's lymphoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           irst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCAAGAGCTA 36
                                                                                                                                                                                                w
                                                                                                                                                                                                Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                            5 C; 5 G; 7 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C-beta targeted oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Holmlund JT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 2.:
                                                                                         red. No. 2.9e+03;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dorr FA;
                                                                                                                                                                                             ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for treating cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.9e+03;
                                                                                                                                                                                             0 Other;
                                                                                                                                          Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
,,
                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #10.
                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      e.g.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                           0
```

AAF70175

```
Search completed: March Job time : 248 secs
                                                   ဓ
                                                                        Š
                                                                                                 Query Match
Best Local S
Matches 20
                                                                                                                                                                    The present sequence is a primer used to isolate polymorphic regions of the human osteoclastogenesis inhibitory factor (TNFRSF11B).

Polynucleotides comprising one or more of twenty four novel single nucleotide polymorphisms in the TNFRSF11B gene have been identified.

TNFRSF11B regulate osteoclast recruitment and function. An understanding of variations in the gene should thus be useful in developing new therapies for metabolic disorders caused by abnormal osteoclast recruitment and function such as osteoporosis, metastatic bone disease, paget's disease, rheumatoid arthritis and periodontal bone disease.
                                                                                                                                                                                                                                                                                                                            Human Osteoclastogenesis Inhibitory Factor nucleotides, comprising single nucleotide polymorphisms, useful for studying e.g. osteoporosis, Paget's disease and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                              Chew
                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; TNFRSF11B; osteoclastogenesis inhibitory factor; single nucleotide polymorphism; SNP; osteoclast recruitment; osteoclast function; osteoporosis; metastatic bone disease; Paget's disease; rheumatoid arthritis; periodontal bone disease; PCR primer; ss.
                                                                                                                                                                                                                                                                                                      Example 1B; Page 38; 114pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                     (GENA-) GENAISSANCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200104137-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human TNFRSF11B gene promoter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                            ₽,
                                                                                                                                                                                                                                                                                                                                                                                    2001-147175/15.
                                                                                                  20;
                                                 N
                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                           Denton RR,
                                               TGAGGTTTCAGAACCCGAAGTGAAG
                                                                                                                                                     26
                                                                        TGAATTTTTAAAACCCGAAGTCAAG 31
                                                                                                                                                  ВP;
                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US018803.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0143020P.
                                                                                                                                                    ထ
                                                                                                                                                   Þ
          20,
                                                                                                                                                                                                                                                                                                                                                                                                                                   PHARM INC
                                                                                                            43.6%;
                                                                                                                                                   4 C; 8
                                                                                                                                                                                                                                                                                                                                                                                                         Duda A, Nandabalan
         2004,
                                                                                              0;
                                                                                                                                                 G; 6 T;
                                                                                                            Score 17;
Pred. No.
           12:25:12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fragment
                                                                                                Mismatches
                                                                                                                                                   0
                                                                                                                                                  U; 0 Other;
                                                                                                            DB 4;
3e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W
                                                                                                                                                                                                                                                                                                                                                                                                         7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                           Stephens JC;
                                                                                                ū
                                                                                                                        Length 26;
                                                                                               Indels
                                                                                              o
••
                                                                                              Gaps
                                                                                               ..
0
```

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect s
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>इ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                    Ω
                                                                                \Omega
                                                                                                      000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic
                 0
H
H
                                                                                                                                                                                                    Pred. No. score grea and is del
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 score:
                                                                                                                                                        Score
       16.8
16
16
15.8
15.8
15.8
15.8
15.8
15.8
15.8
                                                                                      seq
seq
                                                                                                                                                                                                   No. is the number greater than or ed s derived by analys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          О
Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic
                                                                                                                                                                                                                                 Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
5: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
9: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
13: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
14: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
18: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                             length:
                                                                                                                                                    Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hits
                                                                                                                                                                                                                                       99:
110:
110:
113:
115:
117:
117:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapop
                                                                                                                                                                                                                                                                                                                                         7654321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-435-471B-9
39
                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum
Maximum
Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2438257 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY_
        taactctgaatttttaaaacccgaagtcaagagctagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                   Áq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10.0,
                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20,
                                                                                                                                                                                          ian or equal to the sy analysis of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _NGC
                                                                                                                                                                                                                                                                                                                                                                                                                          Match
Match
first
        2004,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore
(c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                using sw model
        1849576744
                                                                                                                                                                                                                                                                                                                                                                                                                          0%
100%
45 Bi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08:36:30
                               US-10-131-827-5310
US-10-349-143-563
US-10-348-485-30
US-10-131-827-5650
US-10-098-263B-1205
US-10-098-263B-1205
US-10-025-367-17
US-10-025-367-17
US-10-131-827-1352
US-10-131-827-2732
US-10-131-827-4948
US-10-287-919-1953
      US-09-894-844-132
US-09-894-844-133
US-09-908-975-13125
                                                                                                                                                       Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                          summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.0
                                                                                                                                                                                                   the total
                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          version 5.1.6
- 2004 Compugen Ltd
                                                                                                                                                                                               predicted by chance to hav score of the result being total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Search time 195 Seconds
(without alignments)
739.831 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1466766
                                                                                                                                                      Q
    Sequence 1
Sequence 1
Sequence
                                sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
                                                                                                                                                    escription
                                                                                                                                   Sequence
                                                                                                                                                                                                         printed,
5310, Ap

563, Appl

563, Appl

5650, Ap

e 1205, Ap

e 1205, Appl

e 17, Appl

e 1352, Ap

e 1352, Ap

ce 1953, Ap

ce 1953, Ap

e 132, App

e 132, App

e 13125, A
```

45	44	43	42	41	40	39	ω 8	37	36	យ	ւյ 4	ω ω	S N	3 1	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
4.	14.6	4.	4.	4.	4	4	4.	4.	4.	4	4	\mapsto	15	1 5	15	15	15	15	15	15	15	ப	ហ	15.4	ហ	ຸບາ	'n	<u>ა</u>	ហ
7.	.7	7	.7	7.	7.	7.	.7	7.	7.	7.	7.	ω.	œ	8	œ	œ	œ	œ	œ	œ	8	8	9	39.5	0	0	0	0	0
50	47	ω ω	ω	25	60	50	50	47	43	43	25	60	60	60	60	60	50	42	42	42	42	42	47	60	50	43	25	60	60
10	15	10	1 0	14	10	<u></u> 5	10	12	<u>፲</u>	14	14	10	<u>۲</u>	10	10	10	15	D.	14	10	10	9	12	10	14	14	14	15	15
-09-993-346-4	-10-349-143-3	-09-828-455-2	-09-828-455-2	-10-098-263В-	-09-908-975-17283	-10-131-827-3	-09-993-346-5	-10-294-934-6	-10-032-585-1	-10-032-585-806	-10-098-263B-	-09-908-975-2	-09-908-975-1	-09-908-975-1	-09-908-975-1	-09-908-975-5	-10-164-717-3	-10-387-304-2	-10-197-185-2	-09-974-685-2	-09-954-594A-	09-865-807-21	-10-294-934-7	US-09-908-975-11926	-10-286-896-2	-10-032-585-1	-10-098-263B-	-10-388-902-1	-10-388-902-1
equence 434, Ap	quence 3	equence 24, App	equence 23, App	equence 64316,	equence 17283,	equence 3498, Ā	equence 517, Ap	equence 683, Ap	equence 1839,	equence 800	equence 350	equence 21	equence 149	quence 12:	equence 119	equence 539	13	equence 21	21	21	21, P	quence 21,	equence 775, Ap	quence 11926,	quence 23,	quence 1924,	quence 19187,	ce 133, Ap	quence 132,

00000

 α α α

a

0

ALIGNMENTS

```
APPLICANT: Fry, Kirk
APPLICANT: Fry, Kirk
APPLICANT: Ly, Ngoc
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING AND MONITORING AUTOIMMUNE
TITLE OF INVENTION: CHRONIC INFLAMMATORY DISEASES
FILE REFERENCE: 506612000120
CURRENT APPLICATION NUMBER: US/10/131,827
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 10/006,290
PRIOR FILING DATE: 2001-10-22
PRIOR APPLICATION NUMBER: US 60/296,764
PRIOR FILING DATE: 2001-06-08
NUMBER OF SEQ ID NOS: 9090
SOFTWARE: Patentin version 3.1
SEQ ID NO 5310
LENGTH: 50
TYPE: DNA
                                                                                                                                                 US-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
US-10-131-827-5310
; Sequence 5310, Application US/10131827
; Publication No. US20040009479A1
; GENERAL INFORMATION:
; APPLICANT: Wohlgemuth, Jay
                                  Š
                                                                      Query Match
Best Local S
Matches 23
                                                                                                                                               ORGANISM: Homo
0-131-827-5310
                                                                    h 49.7%;
Similarity 79.3%;
23; Conservative
                    2 AACTCTGAATTTTTAAAACCCGAAGTCAA 30
AAGTT
TGAATTTGTCAAATCCCAAGTCAA 32
                                                                                                                                                                sapiens
                                                                  0;
                                                                  Score 19.4; D
Pred. No. 5e+0
0; Mismatches
                                                                                    4; DB 15;
5e+02;
                                                                      6
                                                                                                       Length
                                                                      Indels
                                                                                                        50;
                                                                   <u>.</u>
                                                                  Gaps
                                                                      0
```

RESULT 2 US-10-349-143-563/c ; Sequence 563, App

lication US/10349143

Publication

US20040005584A1

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-10-348-485-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-349-143-563
        Matches
                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 30, Appropriation No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                 -10-348-485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
NAME/KEY: allele
LOCATION: 24
OTHER INFORMATION:
                                                                                                                                                                                                                                                  PRIOR PRIOR
                                                                                                                                                                                                                                                                                                             APPLICANT: Dorr, F. Andrew TITLE OF INVENTION: Oligonucleotide Modulation FILE REFERENCE: ISIS4954 CURRENT APPLICATION NUMBER: US/10/348,485 CURRENT FILING DATE: 2003-01-21 PRIOR APPLICATION NUMBER: US/10/025,139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR PRIOR
                                                                                                                                                                                                                                                                                            PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/349,1
CURRENT FILING DATE: 2003-01-21
PRIOR APPLICATION NUMBER: US/09/422,978
                                                                                                                                                             SOFTWARE:
                                                                                                                                                                              NUMBER OF SEQ
                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Blumenfeld, Marta
APPLICANT: Chumakov, Ilya
TITLE OF INVENTION: Biallelic markers
FILE REFERENCE: GENSET.020CP1
                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 1992-03-16
                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                              PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
                                                                                                                                                                                                                        PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                  EQ ID NO 30
LENGTH: 20
                                                                                                       TYPE: DNA ORGANISM: Artificial
                                                                            OTHER INFORMATION:
                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q ID NO 563
LENGTH: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R FILING DATE: 1999-10-20
R APPLICATION NUMBER: EARLIER A
R FILING DATE: EARLIER FILING D
R APPLICATION NUMBER: EARLIER A
R FILING DATE: EARLIER FILING D
R APPLICATION NUMBER: EARLIER A
R APPLICATION NUMBER: EARLIER A
R APPLICATION NUMBER: EARLIER A
R FILING DATE: EARLIER FILING D
R FILING DATE: EARLIER FILING D
RER OF SEQ ID NOS: 11796
                                                                                                                                                                                                                   R FILING DATE: 1997-03-31
R APPLICATION NUMBER: US 08
R FILING DATE: 1995-06-07
R APPLICATION NUMBER: US 08
R FILING DATE: 1993-07-09
                                                                                                                                                                                                                                                                                         FILING DATE: 2001-12-18
APPLICATION NUMBER: US
        Similarity 100 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                             PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCACTAAAAATTTTTTTCACCTKAAGTCATAAGCT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAACTCTGAATTTTTAAAACCCGAAGTCAAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                     Bennett,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cohen,
                                                                                                                                                                                                                                                                                                                                                                                                     Holmlund,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10348485
No. US20030148989A1
                                                                                                                                                                                                                                                                                                                                                                                                                        Dean,
                                                                                                                                                                              占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sapiens
                                                                                                                                                                              NOS: 121
                                                                                                                                                                                                                                                                                                                                                                                                                     Nicholas M.
                                                                                                                                                                                                       1993-07-09
NUMBER: US 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ü
                                                                           Antisense Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99-15441-337
                                                                                                                                                                                                                                                                                                                                                                                                        Jon T.
                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47.7%;
                   43.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/10/349,143
                                                                                                                                                                                                                                   08/089,996
                                                                                                                                                                                                       07/852,852
                                                                                                                                                                                                                                                               08/478,178
                                                                                                                                                                                                                                                                                          08/829,637
                   Score 17;
Pred. No.
        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 18.6; DB
Pred. No. 1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 1
DATE: 1999-04-21
R APPLICATION NUMBER: 1
DATE: 1998-11-23
R APPLICATION NUMBER: 1
DATE: 1998-04-21
        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polymorphic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                   DB 14; I
3.5e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ħ.
                                                                                                                                                                                                                                                                                                                                                                            Off
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                constructing
                                Length 20;
                                                                                                                                                                                                                                                                                                                                                                             Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Φ
        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/109,732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09/298,850
                                                                                                                                                                                                                                                                                                                                                                           Kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47;
- 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 high
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                density.
      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>.</u>
```

```
뭥
                             Ş
                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
US-10-098-263B-1205
                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo US-10-131-827-5650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-131-827-5650/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                     US-10-098-263B-1205
                                                                                                                                            SOFTWARE: MicroseQ ID NO 1205
LENGTH: 25
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 565
Publication
                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                             Sequence 1205, Application US/10098263B Publication No. US20030104410A1 GENERAL INFORMATION:
APPLICANT: Mittman, Michael TITLE OF INVENTION: Human Microarray FILE REFERENCE: 3118.1
                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/098,263B
CURRENT FILING DATE: 2003-01-08
PRIOR APPLICATION NUMBER: 60/276,759
PRIOR FILING DATE: 2001-03-16
NUMBER OF SEQ ID NOS: 131066
SOFTWARE: Microarray Probe Sequence Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NO SOFTWARE: Patentin EQ ID NO 5650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 10/006,290
PRIOR FILING DATE: 2001-10-22
PRIOR APPLICATION NUMBER: US 60/296,764
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: LY, NGOC
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING AND MONITORING AUTOIMMUNE
TITLE OF INVENTION: CHRONIC INFLAMMATORY DISEASES
FILE REFERENCE: 506612000120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/131,827
CURRENT FILING DATE: 2002-09-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                 ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5650, Application US/10131827 ton No. US20040009479A1
                              14
                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24;
  N
                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           Fry, Klin
Woodward, Robert
Ly, Ngoc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGAAGTCAAGAGCTA
                             TTAAAACCCGAAGTCAAGAGCTAG 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wohlgemuth, Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGAAGTCAAGAGCTA
                                                          41.0%;
larity 79.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.1%;
.larity 66.7%;
Conservative
ATCCGAAGACAAGTTCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                  sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOS: 9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        version 3.1
                                                                                                                                                                                         Sequence Listing Generator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ,
                                                       Score 16; DB 14; Pred. No. 9.2e+03; 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 16.8; DB 19
Pred. No. 5.2e+03
); Mismatches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 15;
2e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12;
                                                                                       Length 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                             4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    50;
                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·
•
                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

RESULT 6 US-10-333-429-87/c

Sequence

Appl

ication US/10333429

```
RESULT 8
US-10-349-143-320
                                                                                                                                                                                                멼
                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo
US-10-025-367-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
US-10-025-367-17/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: US-10-333-429-87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: G-083US02PCT
CURRENT APPLICATION NUMBER: US/10/333,429
CURRENT FILING DATE: 2003-01-17
PRIOR APPLICATION NUMBER: PCT/IB01/01477
PRIOR FILING DATE: 2001-06-28
PRIOR APPLICATION NUMBER: US 60/219,704
PRIOR FILING DATE: 2000-07-18
NUMBER OF SEQ ID NOS: 579
                                                                                        Sequence 320, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                        Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17, Applica Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Publication No. US20040048265A1 GENERAL INFORMATION:
APPLICANT: Cohen, Daniel
APPLICANT: Blumenfeld, Marta
APPLICANT: Blumenfeld, Marta
APPLICANT: Chumakov, Ilya
TITLE OF INVENTION: Biallelic markers
FILE REFERENCE: GENSET.020CP1
CURRENT APPLICATION NUMBER: US/10/349,
                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Compounds that affect CD83 expression, printle Of INVENTION: compositions comprising said compounds TITLE OF INVENTION: identifying said compounds FILE REFERENCE: 84201
CURRENT APPLICATION NUMBER: US/10/025,367
CURRENT FILING DATE: 2001-12-19
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Viaxxel Biotech GmbH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
TITLE OF I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo Sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91118 m2/sr
                                                                                                                                                                                                                                                                                                                                                            ID NO 17
ENGTH: 42
                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match
                                                                                                                                                                                               8
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47
                                                                                                                                                                                                                                                        20;
                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             თ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          47
                                                                                                                                                                                                                                                    Similarity 74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 64.<sup>°</sup>
22; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent.pm
                                                                                                                                                                                             ĊŢĊŢĠŢĂŢŢŢĊŢŢÁĀĀĊĊĊĠĠĠŢŢĄĀĀ
                                                                                                                                                                                                                       CTCTGAATTTTTAAAACCCGAAGTCAA 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAATTTTAAATCAGGTGGTCRCAATTAAGTA 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGAATTTTTAAAACCCGAAGTCAAGAGCTAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/10025367
                                                                                                       Application US/10349143 o. US20040005584A1
                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99-26989-152
                                                                                                                                                                                                                                                                  40.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41.0%;
   US/10/349,143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Associated Biallelic
                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                    Score 15.8; D
Pred. No. 1.2e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 16; DB 12; :
Pred. No. 1.1e+04;
; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polymorphic base
                                for use
                                                                                                                                                                                                                                                  8; LL
1.2e+04;
7;
                               r.
H
                                                                                                                                                                                                                                                                               13;
                             constructing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Marker Maps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 47;
                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                   42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and methods
                              b)
                                                                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>.</u>
                            high density...
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                    0
```

```
RESULT 10
US-10-131-827-2732/c
                                                                                                   Š
                                                                                                                                                                                                                                                                                                             APPLICANT: LY, NGOC

APPLICANT: LY, NGOC

TITLE OF INVENTION: METHODS AND COMPOSITION: TITLE OF INVENTION: CHRONIC INFLAMMATORY

FILE REFERENCE: 506612000120

CURRENT APPLICATION NUMBER: US/10/131,827

CURRENT FILING DATE: 2002-09-06

PRIOR APPLICATION NUMBER: US 10/006,290

PRIOR FILING DATE: 2001-10-22

DRIOR APPLICATION NUMBER: US 60/296,764
                                                                                                                                                                                                       US-10-131-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-131-827-1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-349-143-320
                                                                                                                                 Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 320
LENGTH: 47
TYPE: DNA
                                                                                                                                                                                                                                                  SOFTWARE: PatentI
SEQ ID NO 1352
LENGTH: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 135
Publication
                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION
PRIOR FILING DATE:
NUMBER OF SEQ ID N
                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo
10-131-827-1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 2003-01-21
PRIOR APPLICATION NUMBER: US/09/422,978
PRIOR FILING DATE: 1999-10-20
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 09/298,850
PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/109,732
PRIOR FILING DATE: EARLIER FILING DATE: 1998-11-23
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/082,614
PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-21
NUMBER OF SEQ ID NOS: 11796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Wohlgemuth, Jay
APPLICANT: Fry, Kirk
APPLICANT: Woodward, Robe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1352, Application US/10131827
on No. US20040009479A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IJ
                                                                     æ
                                                                                                                                    23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Н
                                                                                                                              1 40.5%;
Similarity 65.7%;
23; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       allele
                                                                                                   AACTCT
                                                                     AAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAACTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fry, Kirk
Woodward, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40.5%;
ilarity 69.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                              DN: METHODS AND COMPOSITIONS FOR DIAGNOSING AND MONITORING AUTOIMMUNE DN: CHRONIC INFLAMMATORY DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTAATKTTTTAAAGATGTAGTAA
                                                                  GATTTTTGGAAACGAGTATTGGAGGACTA
                                                                                                                                                                                                                   apiens
                                                                                                GAATTTTTAAAACCCGAAGTCAAGAGCTA 36
                                                                                                                                                                                                                                                                                       Ħ
                                                                                                                                                                                                                                                                                                   NOS: 9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAATTTTTAAAACCCGAAGTCA 29
                                                                                                                                                                                                                                                                                      version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99-14204-468 : polymorphic base
                                                                                                                                                                                                                                                                                                                                                                                                    US/10/131,827
                                                                                                                                   0;
                                                                                                                                Score 15.8; D
Pred. No. 1.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15.8; DB 15;
Pred. No. 1.3e+04;
Mismatches 8;
                                                                                                                                8; DB 15;
1.3e+04;
ches 12;
                                                                 42
                                                                                                                                                                 Length 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O
F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     47;
                                                                                                                                 .
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

Sequence 2732, Application US/10131827 Publication No. US20040009479A1 GENERAL INFORMATION:

APPLICANT: APPLICANT: APPLICANT:

Fry, Name Woodward, Ngoc

Robert

Wohlge

emuth, Kirk

Јау

APPLICANT:

2488

```
RESULT
US-10-1
                                                                                                                                                     RESULT
US-10-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-131-827-2732
                                                                                                                                                                                                                                                                                                                                        US-10-131-827-4948
            Sequence 1953, Application US/10287919
Publication No. US20030085830A1
GENERAL INFORMATION:
APPLICANT: Feldmann, Richard J.; Global Determinants,
TITLE OF INVENTION: Methanococcus jannaschii complete
FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
CURRENT APPLICATION NUMBER: US/10/287,919
CURRENT FILING DATE: 2002-11-05
NUMBER OF SEQ ID NOS: 2706
                                                                                                                                                                                                                                                                                                                                                                                               QES
                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                           Query Match
Best Local |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4948, Application US/10131827 Publication No. US20040009479A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                   -10-287-919-1953/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -10-131-827-4948
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 2001-10-22
PRIOR APPLICATION NUMBER: US
     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/131,827 CURRENT FILING DATE: 2002-09-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: LY, NGOC
TITLE OF INVENTION: METHODS AND
TITLE OF INVENTION: CHRONIC INF
FILE REFERENCE: 506612000120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US OPRIOR FILING DATE: 2001-06-08
NUMBER OF SEQ ID NOS: 9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/131,83
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 10/006,290
PRIOR FILING DATE: 2001-10-22
                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wohlgemuth, Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: METHODS AND TITLE OF INVENTION: CHRONIC INFILE REFERENCE: 506612000120
                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                      ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q ID NO 2732
LENGTH: 50
                                                                                                                                                                                                                                                                                                                                                                                               ID NO 4948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43
                                                                                                                                                                                                                                                                            23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23;
                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \vdash
                                                                                                                                                                                                                  æ
 Proprietary
                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                              PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAACTCTGAATTTTTAAAACCCGAAGTCAAGAGCT
                                                                                                                                                                                                                                            AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGTATTATTTTAGÁACCTGÁTGCTCÁGÁGTT 9
                                                                                                                                                                                                                AAATCTGATTTTTGGAAACGAGTATTGGAGGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fry, Kirk
Woodward, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40.5%;
nilarity 65.7%;
Conservative
                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                             3: 2001-06-08
NOS: 9090
                                                                                                                                                                                                                                                                                          40.5%;
65.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/10/131,827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10/006,290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/296,764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND COMPOSITIONS FOR DIAGNOSING AND MONITORING AUTOIMMUNE INFLAMMATORY DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                             60/296,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFLAMMATORY DIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                         Score 15.8; D
Pred. No. 1.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.8;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISEASES
                                                                                                                                                                                                                                                                         DB 15;
.3e+04;
es 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .3e+04;
es 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 15;
                                                                                                                                                                                                                42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DIAGNOSING AND MONITORING AUTOIMMUN
                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                         genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ភo;
                                                                                                                                                                                                                                                                                                      50;
                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               o
;:
                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                           o
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             °,
                                                                                                                                                                                                                                                                         US-09-894-844-133
                                                                                                                                                                                                                                                                                                                                     р
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
US-09-894-844-132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           벙
                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-894-844-132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-287-919-1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFO
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ
                                                                                                                                                                                                                            GENERAL
                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Fai
SEQ ID NO 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                            Patent
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
          CURRENT APPLICATION NUMBER: US/09/894,844
CURRENT FILING DATE: 2001-06-27
PRIOR APPLICATION NUMBER: 09/318,191
PRIOR FILING DATE: 1999-05-25
PRIOR APPLICATION NUMBER: 60/097,936
PRIOR FILING DATE: 1998-08-25
NUMBER OF SEQ ID NOS: 137
                                                                                                             APPLICANT: Behr, Marcel
APPLICANT: Small, Peter
APPLICANT: Schoolnik, Gary
APPLICANT: Wilson, Michael A.
TITLE OF INVENTION: Molecular Differences
TITLE OF INVENTION: the M. Tuberculosis C
FILE REFERENCE: STAN102CON
SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1161
OTHER INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Metha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID NO 1953
                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                              ZO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           132, Appl
                                                                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATI
                                                                                                                                                                                                                                            133, Appl
o. US2002(
                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17;
                                                                                                                                                                                                                                                                                                                                                                 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Simila
FastSE(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Behr,
Smal
                                                                                                                                                                                                                                                                                                                                     AATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCTC
Ю
                                                                                                                                                                                                                                           0176873A1
                                                                                                                                                                                                                                                         lication US/09894844
for Windows Version 4.0
```

밁

λõ

g

Complex Between

Species

O Hi

```
FILE REFERENCE: STAN102CON
CURRENT APPLICATION NUMBER: US/09/894,844
CURRENT FILING DATE: 2001-06-27
PRIOR APPLICATION NUMBER: 09/318,191
PRIOR FILING DATE: 1999-05-25
PRIOR APPLICATION NUMBER: 60/097,936
PRIOR FILING DATE: 1998-08-25
NUMBER OF SEQ ID NOS: 137
                                                                                                                                                                                                                                                                                                                                   APPLICANT: Small, Peter
APPLICANT: Schoolnik, Gary
APPLICANT: Wilson, Michael A.
APPLICANT: Wilson, Michael A.
TITLE OF INVENTION: Molecular Differences Between
TITLE OF INVENTION: the M. Tuberculosis Complex
TOTAL OF INVENTION: THE M. Tuberculosis Complex
                                                                  1 40.5%;
Similarity 74.1%;
20; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTCTGAATTTTAAAAC 20
                                  AACTCTGAATTTTTAAAACCCGAAGTC 28
                                                                                                                                                          tuberbulosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40.5%;
larity 89.5%;
Conservative
rGAATTCATACAAGCCGTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lication US/09894844
0176873Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGATTTTTAAAAC 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   190)...(1161241)
ON: Chromosome =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nococcus jannaschii complete genome.
                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                               Score 15.8; DB y;
Pred. No. 1.4e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.8; DB 14; Pred. No. 1.3e+04; D; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ∥
|-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strand =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  negative
                                                                                                                                                                                                                                                                                                                                                                                                         Species
                                                                                                     Length 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ConnectronObjectNumber
                                                                                                                                                                                                                                                                                                                                                                                                           O
Hi
                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                    0
```

```
RESULT 15
US-09-908-975-13125
Sequence 13125, Application US/09908975
Publication No. US20030165843A1
GENERAL INFORMATION:
APPLICANT: WASSERMAN, Avi
APPLICANT: MASSERMAN, Alon
ARPLICANT: MINYZ, Eli
APPLICANT: MINYZ, Eli
APPLICANT: MINYZ, Liat
APPLICANT: FAIGLER, Simchon
TITLE OF INVENTION: OLIGONUCLEOTIDE LIBRARY FOR DETECTING RNA TRANSCRIPTS AND SPLICE
TITLE OF INVENTION UNMERS: US/09/908,975
CURRENT APPLICATION NUMBER: US/09/908,975
CURRENT APPLICATION NUMBER: US/09/908,975
CURRENT APPLICATION NUMBER: US/09/908,975
PRIOR APPLICATION NUMBER: US/09/908,975
PRIOR PILING DATE: 2001-07-20
PRIOR PILING DATE: 2001-07-20
PRIOR APPLICATION NUMBER: US/09/908,975
PRIOR PILING DATE: 2001-07-28
UNMBER OF SEQ ID NOS: 32337
SOFTWARE: Patentin version 3.0
SEQ ID NO 13125
LENGTH: 60
TYPE: DNA
ORGANISM: Homo sapiens
US-09-908-975-13125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; SEQ ID NO 133
; LENGTH: 60
; TYPE: DNA
; ORGANISM: M. t:
US-09-894-844-133
                                                                                    B
                                                                                                                        Ş
Search completed: March Job time : 197 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match

Best Local Similarity 74.1%;

Matches 20; Conservative
                                                                                                                                                              Query Match 40.5%;
Best Local Similarity 65.7%;
Matches 23; Conservative
                                                                           2 AACTCTGAATTTTTAAAACCCGAAGTCAAGAGCTA 36
|||||| || || || || || || || || || 1
11 AACTCTGGCTTAGGAAAACATGAACACAGGGGCAA 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19 AATTGTGAATTCATACAAGCCGTAGTC 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 AACTCTGAATTTTTAAAACCCGAAGTC 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tuberculosis
                 20,
                2004,
                                                                                                                                                         Score 15.8; DB 10;
Pred. No. 1.4e+04;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.8; DB 9;
Pred. No. 1.4e+04;
0; Mismatches 7;
                   11:47:36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 60;
                                                                                                                                                                                                     Length 60;
                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                            °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,</u>
```